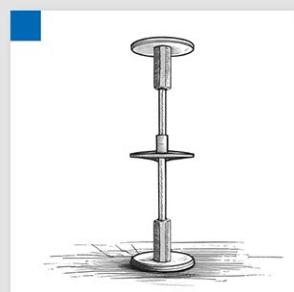
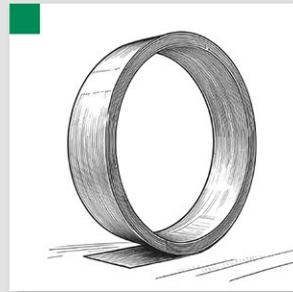
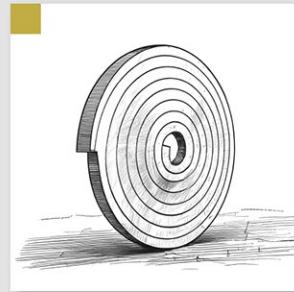


PRICE LIST 2025/2026





MASTERTEC

SPECIAL ARTICLES FOR REINFORCED CONCRETE CONSTRUCTION

MASTERTEC – Quality and Innovation for Reinforced Concrete Construction

For over 25 years, MASTERTEC has been providing smart solutions for reinforced concrete construction. Waterproofing of buildings, lightning protection, and formwork accessories are our specialties. Our current product range includes the latest developments – marked with this **NEW!** symbol – as well as proven solutions.

Our products are developed and manufactured locally in Germany. Additionally, we conduct extensive testing in renowned testing facilities. This ensures that all the products you find in our catalogue deliver on our promise: maximum safety with outstanding quality!

Moreover, something particularly important to us as a family-owned company is communication on equal footing with our customers, distributors, and business partners. Even as we use the latest technologies to enhance our offerings, human interaction will always remain a priority for us.

The MASTERTEC team now consists of 55 employees who dedicate themselves to our goals, and our products are used in construction projects across the globe. To our dealers, distribution partners, and friends who have supported and continue to support us on this journey, we extend our heartfelt thanks as the MASTERTEC team.

We wish you much success with our new product range and look forward to continued collaboration!

Jakob and Felix Kropfelder
Managing Directors



You can contact us

Monday – Thursday
7:15 am – 12:00 pm
12:45 – 4:30 pm

Friday
7:15 am – 12:00 pm
12:45 – 3:00 pm

Over 25 years of Mastertec

Founding year: 1998

Employees: 55

Storage and logistics: Approx. 8000 m² of storage and production area, 6000 pallet slots

Target markets: Europe and growing export to non-European countries

In-house: Development and construction, production and assembly, quality assurance, training



1998

Introduction of **MASTERTUBE** injection hose

1999

Development and production start of **MASTERSTOP** bentonite swelling tapes

2001

MASTER joint sheet metal: First coated joint sheet metal with fixing angle

2002

MASTERSTOP SK: Self-adhesive bentonite swelling tape

2004

First attendance at the **bauma** trade fair in Munich
Development of **WELLO active lining pipe**, **Introduction of FASO lining pipe**, **VB joint sheet metal**, **RONDO sealing collar** and **KG sewage pipe bushing type double socket (DM)**

2007

VB joint sheet metal roll,
Launch of lightning protection

2012

MASTERSTOP LONG TIME

2013

RONDO MINI

2014

High-pressure swelling tape
FLOWSTOP

2016

STOPPER and **ActiveRings**

2017

First attendance at the **BAU** trade fair in Munich

2018

Development and production of **stopend panels**

2019

LinkForm and **LinkFix**,
RONDO Protect sealing collar

2020

Development of **STOPPER SCREW**

2022

Stopend panels in all common versions, **ABS formwork comb**, **Waterproofing technologies** for agricultural buildings, **UniCut lining pipe**, **MASTERTEC Connector** connection seal, **Pipe bushing Novo**, type double socket (DM)

2023

STOPPER SCREW patent and **25 years of MASTERTEC**

2024

Expansion of steel processing and **new formwork stopend panels**

2025

Robot-assisted technology for production

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Service platforms

AUSSCHREIBEN.DE



MASTERTEC can also be found on the leading service platforms of the construction sector. This is where you will find the right answers if you are preparing invitations to tender, researching product information or if you would like information on the sustainability of our range.

Interactive price list

The PDF version of our price list features an interactive design. You can click on an article number to directly call up detailed product information for the selected product on our website. This is where you will find comprehensive technical data, product information, installation instructions, product videos and .dwg files.

The most important information at a glance

Art. no.	Description	PU	Weight
070430	Joint sheet metal 160 VB2 in crate Length 2.4 m, height 160 mm, 1 crate = 120 m (50 strips of 2.4 m each), fully coated on both sides, incl. 55 fixing clips	Art.Gr. 200 1 crate = 120 m 1 pallet = 12 crates	115.50 kg per crate
070432	Joint sheet metal 160 VB2 in crate Length 2,0 m, height 160 mm,	Art.Gr. 200 1 crate = 100 m	98.50 kg per crate

VB joint sheet metal (Height 160 mm)

Strips and rolls [Technical details pages 74 – 75](#)



entwölft 6 cm und pressen zusammen
fixing clip

[www.MASTERTEC](#)

www.MASTERTEC

Product safety

Our products are certified by testing institutes for the various areas of application.



IAF - Radioökologie GmbH

Labor für Radionuklidanalytik
Radiologische Gutachten
Consulting



Eurotest

Deutsches
Institut
für
Bautechnik



DBI - Gastechnologisches
Institut gGmbH Freiberg



We are a member



From involvement in the compilation of standards for the construction of lightning protection systems, to conducting seminars and workshops and systematic public education, the association makes a major contribution to personal safety and the protection of objects of material value. This service is provided thanks to the voluntary activity of its members.



The technical and academic association of the German construction industry is dedicated to the primary issues of construction technology and its further development within German and European networks. It promotes academia and research with construction consultations, events, publications and committee work.



The FHRK association aims to raise and increase interest in the proper sealing of house entries for supply and disposal lines. Additionally, it seeks to develop technically sound, sustainable, and efficient solutions in collaboration with utility companies and other users.

MASTERTEC PRODUCT RANGE

PRODUCT GROUP

Hydrophilic waterstop 1

- Bentonite swelling tapes
- Self-adhesive swelling tape
- High-pressure swelling tapes
- Swelling pastes
- Adhesives
- Grids

pages 9 – 24

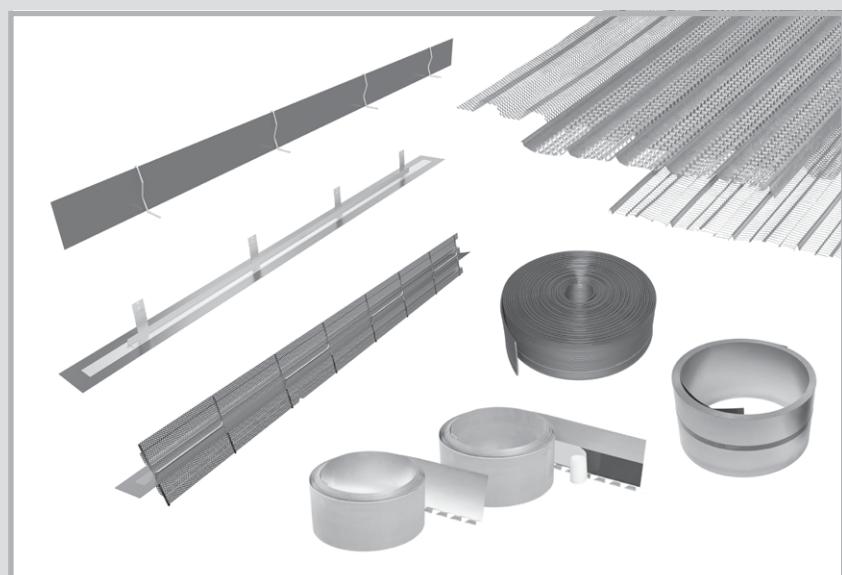


PRODUCT GROUP

Joint sheet metals 2

- Coated joint sheet metals
- Crack-inducing profiles
- Uncoated joint sheet metals
- Joint tapes
- Connectors
- Rib laths
- Formwork systems+ accessories

pages 25 – 98



PRODUCT GROUP

Injection hoses Construction chemistry 3

- Injection hoses
- Accessories for injection hoses
- Injection packers
- Injection resins
- Concrete adhesives
- Concrete release agents

pages 99 – 108



MASTERTEC PRODUCT RANGE

PRODUCT GROUP

Pressure water-tight service ducts

4

- Formwork aids
- Service duct system
- Lining pipes
- Gasket inserts
- Sealing compound
- Sealing collars
- Pipe bushings
- Ground drains

pages 109 – 152



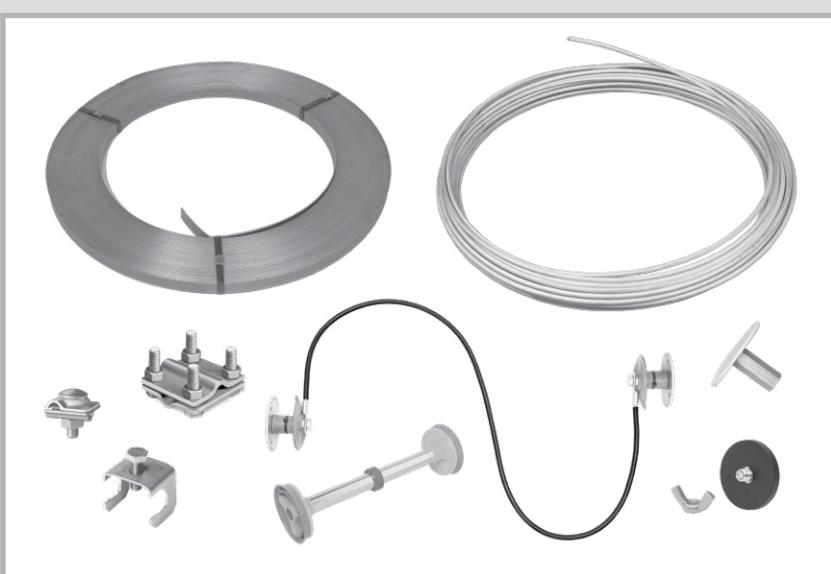
PRODUCT GROUP

Lightning protection

5

- Lightning protection conductors
- Connectors
- Connecting clamps
- Fixed earthing terminals
- Wall bushings
- Earth rods

pages 153 – 174



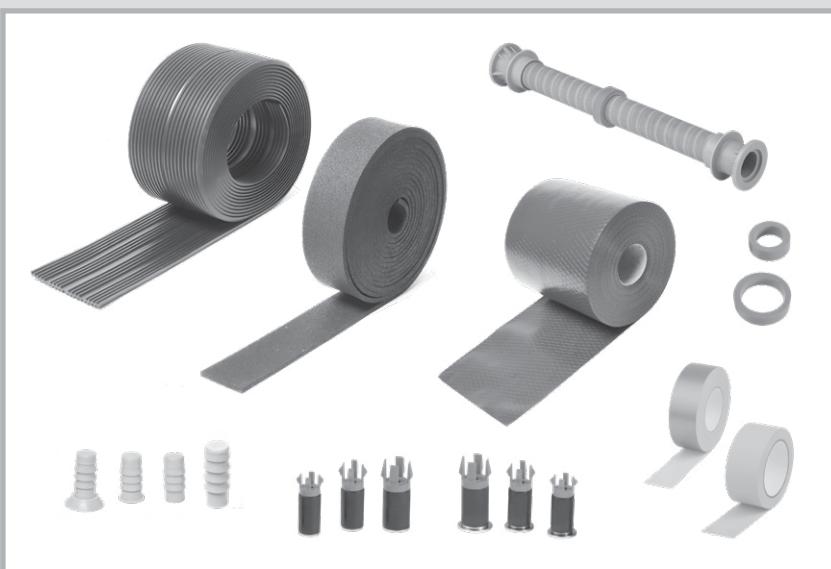
PRODUCT GROUP

Formwork accessories

6

- Sealing plugs
- Sealing of formwork tie points
- Corrugated bearings
- Impact sound insulation/ bearings
- Adhesive tapes
- Damp proof courses

pages 175 – 191



page 192

Shipping costs
General Terms and Conditions

Our pictograms

In many places in this catalogue, you will find various pictograms. This is a brief overview of their meanings:



Test of impermeability to pressurised water



Test of impact sound reduction based on DIN EN ISO 140-8



Test of fire resistance class according to DIN EN 13501-2 and construction materials class according to DIN EN 13501-1 and DIN 4102-1



Test of maximum static load



Test of resistance to various media



Test of lightning current carrying capacity class according to DIN EN 62561-1



Standard sound level differential test to DIN EN ISO 10140-2



Test short-circuit current carrying capacity



National technical approval for storage and filling facilities of slurry/liquid manure/silage effluent and biogas facilities



Compliance with the European requirements for construction technology



Test of impermeability to the naturally-occurring radioactive inert gas Radon



Compliance with a European harmonised standard

For products which feature this pictogram, you will find further technical information on the specified page.

Technology

You will find additional information, such as technical data sheets, installation videos, installation instructions and dwg files on our website at www.mastertec.eu

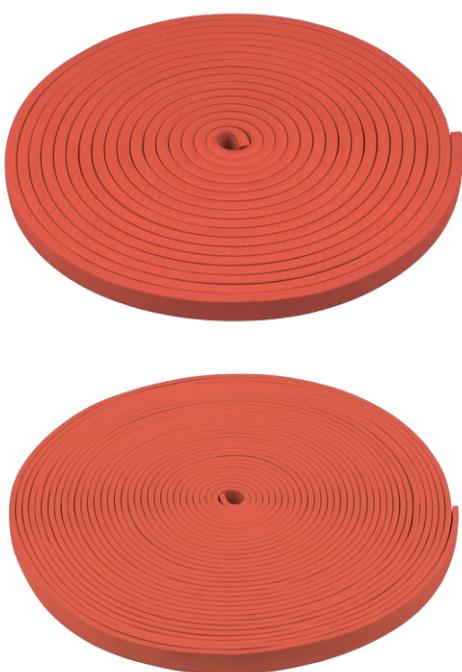
HYDROPHILIC WATERSTOPS



MASTERSTOP
Bentonite swelling tape
page 10



MASTERSTOP SK
Self-adhesive
bentonite swelling tape
page 11



FLOWSTOP
High-pressure swelling tape
page 11



Accessories for swelling tapes
pages 12 – 13

SWELLING TAPES

MASTERSTOP bentonite swelling tapes

for the waterproofing of construction joints Technical details pages 14 – 17



Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per m	
010011	MASTERSTOP bentonite swelling tape Size: 25 x 20 mm, colour: black, Carton 30 m (6 rolls of 5 m each), Pressure-tight up to 80 m water column on rough and smooth surfaces (For technical details see page 14)	Art.Gr. 100	1 carton	1 pallet = 36 cartons	22.65 kg	€12.80
010012	MASTERSTOP LONG TIME Bentonite swelling tape with protective film, Size: 25 x 20 mm, colour: black, Carton 30 m (6 rolls of 5 m each), Pressure-tight up to 50 m water column	Art.Gr. 100	1 carton	1 pallet = 36 cartons	23.20 kg	€22.00
010020	MASTERSTOP bentonite swelling tape Size: 20 x 15 mm, colour: green, Carton 30 m (6 rolls of 5 m each), Pressure-tight up to 20 m water column	Art.Gr. 110	1 carton	1 pallet = 36 cartons	13.95 kg	€11.40

Art. no. 010011



Art. no. 010012



Art. no. 010020



MASTERSTOP bentonite swelling tapes

for subordinate waterproofing

Art.Gr. 110

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per m
010017	MASTERSTOP bentonite swelling tape Size: 20 x 10 mm, colour: black, Carton 54 m (9 rolls of 6 m each)	1 carton	1 pallet = 36 cartons	16.90 kg	€11.10

Art. no. 010017



MASTERSTOP SKSelf-adhesive bentonite swelling tape Technical details page 18Art.Gr.
101

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per m
010025	MASTERSTOP SK Size: 20 x 5 mm , self-adhesive, Carton 90 m (5 rolls of 18 m each), Pressure-tight up to 50 m water column	1 carton	1 pallet = 36 cartons	14.95 kg	€7.60

Art. no. 010025



self-adhesive

Waterproofing of a lining pipe
with MASTERSTOP SK

At the construction site

FLOWSTOP

High-pressure TPE swelling tapes

for waterproofing of construction joints

Technical details pages 19 – 21Art.Gr.
102

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per m
010040	FLOWSTOP Size: 20 x 5 mm , Carton 120 m (6 rolls of 20 m each), Pressure-tight up to 80 m water column	1 carton	1 pallet = 36 cartons	19.60 kg	€10.10
010045	FLOWSTOP Size: 20 x 10 mm , Carton 60 m (6 rolls of 10 m each), Pressure-tight up to 80 m water column	1 carton	1 pallet = 36 cartons	17.80 kg	€15.75

Art. no. 010040



Art. no. 010045



FLOWSTOP is fixed using POWER swelling tape adhesive.

Suitable installation accessories such as swelling tape adhesive and grids can be found on pages 12/13.

Adhesives and swelling paste

Technical details pages 22 – 24

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per cartridge
010050	Swelling tape adhesive for bentonite swelling tape Cartridge 310 ml Usage: 1 cartridge = approx. 7 m suitable for damp substructures	1 pc.	1 carton = 20 cartridges	11.00 kg	€16.50
010052	POWER swelling tape adhesive High-pressure adhesive for fixing MASTERSTOP and FLOWSTOP swelling tapes or for fixing the foil flange, Cartridge 310 ml, Usage: 1 cartridge = approx. 7 m, suitable for damp substructures	1 pc.	1 carton = 20 cartridges	9.80 kg	€21.20
010030	MasterMastic PU swelling paste  Polyurethane-based swelling paste, for waterproofing construction joints (20 m water column) and penetrations (40 m water column) or for fixing swelling tapes, Cartridge: 310 ml, Usage: Construction joint approx. 300-350 ml/m Usage: Penetration approx. 80-100 ml/m Usage: Fixing swelling tape approx. 45-50 ml/m	1 pc.	1 carton = 12 cartridges	5.65 kg	€32.30

Art. no. 010050



Art. no. 010052



Art. no. 010030



The POWER swelling tape adhesive can do more in construction:

- Very good adhesion to many substrates
- Bonding of stone, natural stone and ceramics
- Bonding and mounting of all kinds of different materials, such as wood, wood materials, plastics and metals
- Extremely water-resistant – for bonds with high water load
- Paintable
- Free from silicone and isocyanate

Fastening grids

Art.Gr.
105

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per m
010060	Universal swelling tape grid for bentonite swelling tapes 25 x 20 mm and 20 x 15 mm, Carton 30 m (30 grids of 1 m each)	1 carton	1 pallet = 250 cartons	2.40 kg	€2.30
010065	Swelling tape grid for MASTERSTOP LONG TIME 25 x 20 mm, Carton 30 m (30 grids of 1 m each)	1 carton	1 pallet = 99 cartons	5.50 kg	€4.00



Art. no. 010060



Art. no. 010065

Fastening nails

Art.Gr.
106

Art. no.	Description	PU	Weight	Price per 100 pcs.
010080	Nails for bolt-firing tool Length: 42 mm with big washer	1 bag of 100 pcs.	1.10 kg per bag	€32.90
010090	Nails for manual fastening Length: 40 mm with washer	1 carton of 250 pcs.	0.95 kg per carton	€22.50 €56.25 per carton

Art. no. 010080



Art. no. 010090



Art. no. 010080



Art. no. 010090

Place the swelling tape grid over the MASTERSTOP bentonite swelling tape and fasten to the concrete with nails. Nailing can be performed manually or with a bolt-firing tool. The spacing between the nails must not exceed 20 cm.

MASTERSTOP bentonite swelling tapes



- European Technical Assessment ETA
- General Building Supervisory Test Certificate (abP) for smooth and rough construction joints
- Standard test 50 m water column with swelling tape adhesive
- High pressure testing for smooth and rough construction joints with water column up to 80 m. In this case, POWER swelling tape adhesive or MasterMastic PU swelling paste must be used for fastening.
- Complies with the directive for water-impermeable structures. Wear classes 1 + 2: continuously or periodically pressurised water or soil moisture and utility class A + B

Product description

MASTERSTOP bentonite swelling tapes have a proven track record which goes back many years in construction practise. They swell upon contact with water and seal cracks or construction joints reliably and permanently. The test certificates confirm the product's suitability for various applications.

The convincing advantages of MASTERSTOP bentonite swelling tapes

- Produced with high-grade sodium bentonite
- Easy and safe installation
- No foundation curb
- Self-injecting effect: the swelling tape components penetrate cracks and cavities
- Environmentally friendly
- No fittings or welding
- Swelling and shrinking process is reversible
- Dimensionally stable and not sticky
- No cuttings or oddments
- Safety proved by extensive testing

Resistances of MASTERSTOP bentonite swelling tapes and MASTERSTOP SK

Further resistances are available on request.

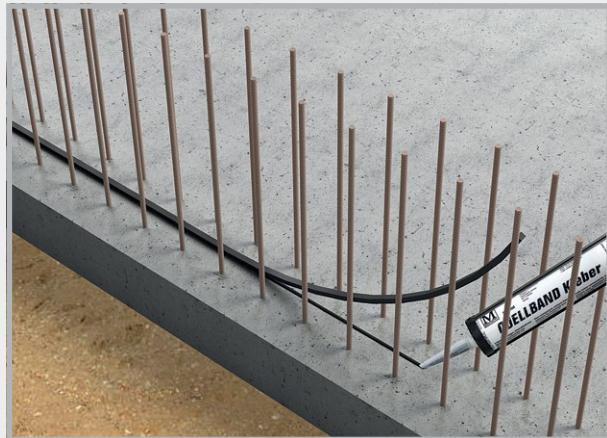
Medium	resistant	not resistant
Alkalies in general	✓	
Urea	✓	
Liquid manure/slurry	✓	
Biogas	✓	
Radon	✓	
De-icing salt	✓	
Substances obtained by means of composting	✓	
Petrol		✓
Diesel		✓
Heating oil		✓

Installation

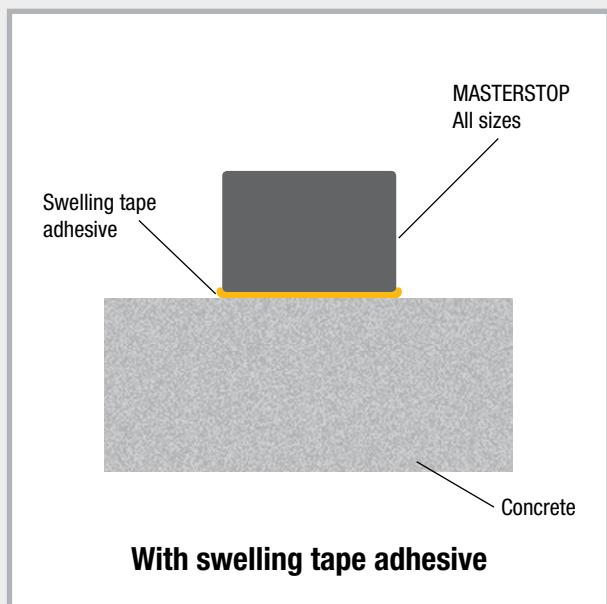
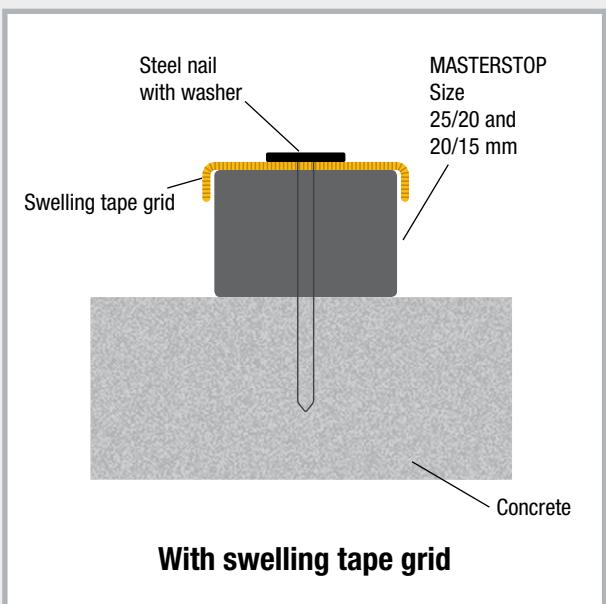
MASTERSTOP bentonite swelling tapes are fixed with a swelling tape grid, swelling tape adhesive or with MasterMastic PU swelling paste. They are laid inside the reinforcement with a concrete cover of at least 8 cm.



Installation with fastening grid and nails



Installation with swelling tape adhesive



Laying

Size 25/20 mm



Straight butt joint



Corner butt joint

MASTERSTOP LONG TIME

All-weather bentonite swelling tape

Product description and function

MASTERSTOP LONG TIME 25 x 20 mm is a bentonite swelling tape for the waterproofing of foundation/foundation, foundation/wall and wall/wall construction joints.

MASTERSTOP LONG TIME is equipped with a protective film which enables installation in all kinds of weather.

The protective film ensures that the swelling tape can be exposed to rain and in-situ water for at least 10 days without expanding.

This changes when it is encased in concrete. The composition of the concrete causes the protective film to lose its effect after few days so that the swelling tape is set free and seals the joints safely and permanently in case of water ingress.

The tape is not suitable for installation underwater or long-term immersion in water.

Safety

MASTERSTOP LONG TIME is not a hazardous substance and is uncomplicated to use and handle.

Storage

MASTERSTOP LONG TIME must be stored in a dry place and protected from contamination and mechanical damage. Swelling tapes which have already started expanding as well as swelling tapes with an altered geometry or damaged protective film must not be installed.



Rain protection 10 days

Pressure-tight 50 m water column



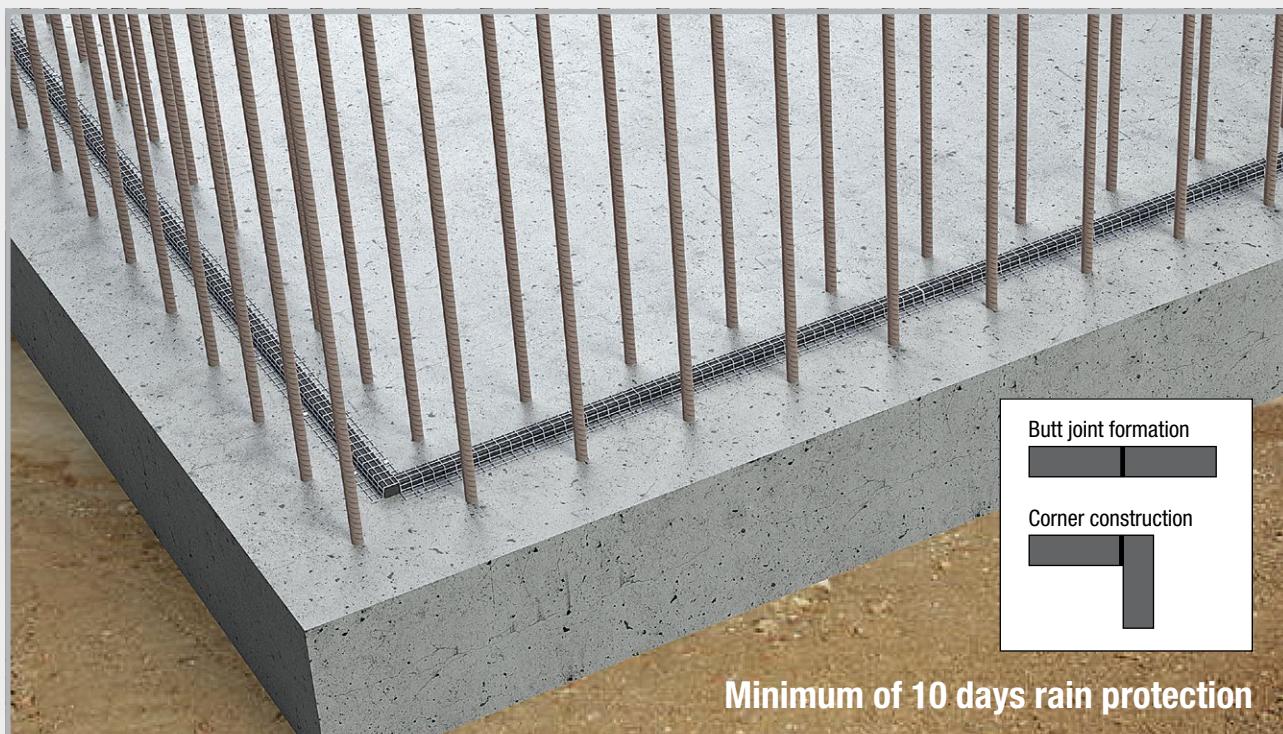
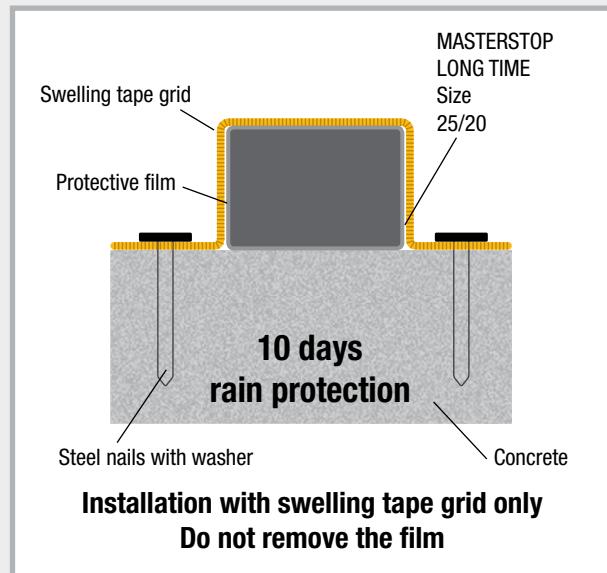
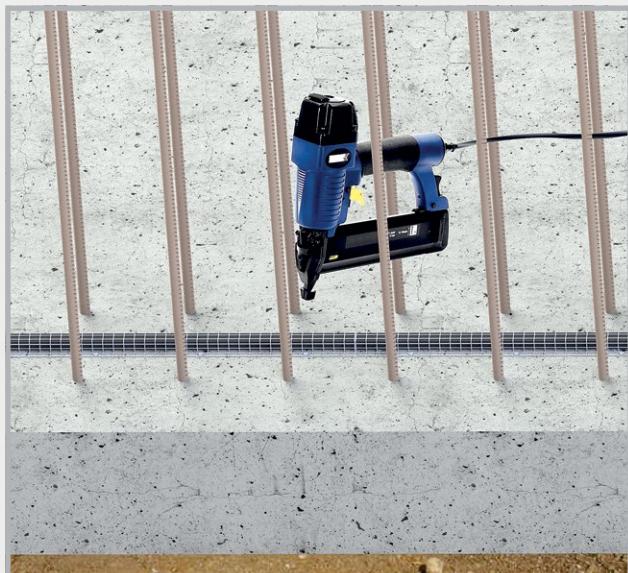
Comparison of swelling tape with and without protective film

The convincing advantages of MASTERSTOP LONG TIME

- All-weather installation
- No foundation curb
- Self-injecting effect: the swelling tape components penetrate cracks and cavities
- Environmentally friendly
- No fittings or welding
- Swelling and shrinking process is reversible
- Dimensionally stable and not sticky
- No cuttings or oddments
- Safety proved by extensive testing

Installation

- MASTERSTOP LONG TIME is installed in the centre of the joint within the reinforcement.
- An adequate concrete cover of at least 8 cm must be ensured.
- The swelling tape cannot be glued and instead must be fixed to the substrate using a swelling tape grid. To ensure that the swelling tape lies flat on the concrete substrate, the grid usually needs to be fixed to the concrete using nails every 20 cm in the longitudinal direction. The distance between the nails can be reduced if necessary.
- Make sure that the protective film is not damaged.
- The tape ends are butt jointed. If tape sections are used, pull back the protective film, cut off approx. 5 cm of the swelling tape and turn down the film in order to prevent contact with water.
- The concrete substrate must be level and free of loose or separating particles and must not be excessively rough.



Installation of MASTERSTOP LONG TIME with swelling tape grid
8 cm concrete cover within reinforcement



MASTERSTOP SK

Self-adhesive bentonite swelling tape



Product description

MASTERSTOP SK is a self-adhesive bentonite swelling tape which expands on contact with water and prevents water penetration.

Testing

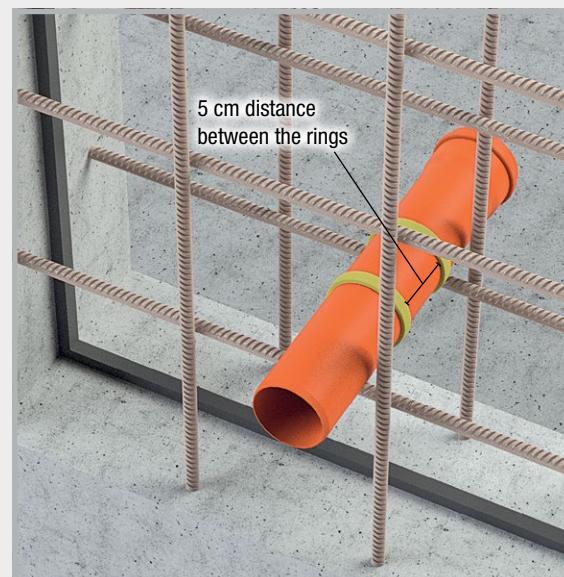
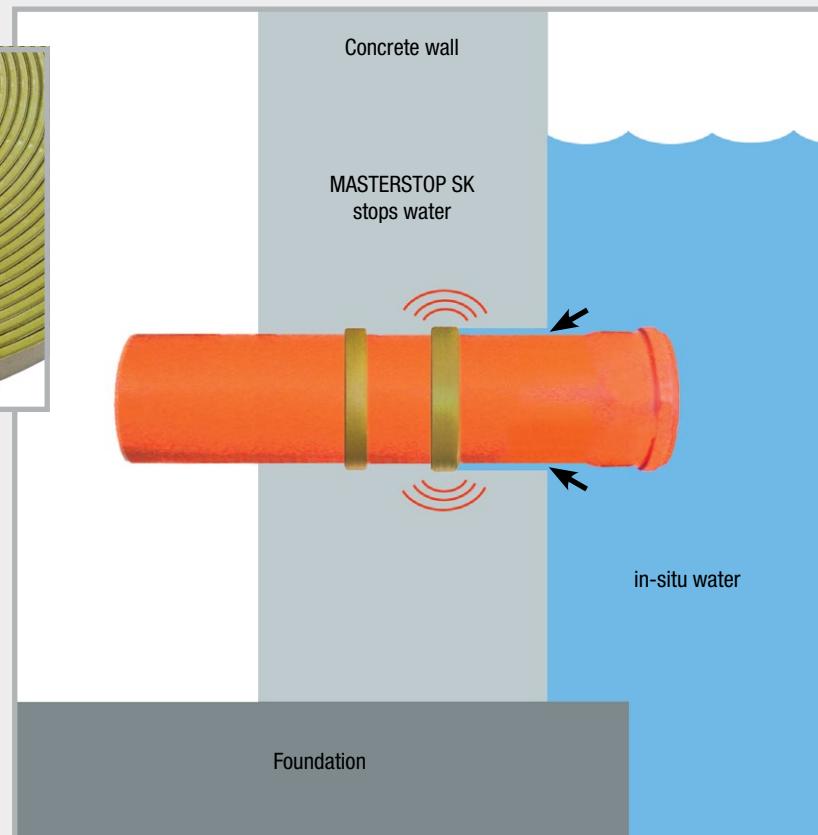
- Test report MFPA Leipzig, up to 50 m water column
- Environmentally friendly

Application

- Water-impermeable integration of pipe ducts in concrete buildings
- Waterproofing of reinforcement connections
- Waterproofing of ground drains

Installation

- Pull off silicone paper and affix 2 rings of MASTERSTOP SK around the pipe to be waterproofed.
- Butt joint ends, no overlaps
- The pipe surface must be rigid
- MASTERSTOP SK adheres to metal, plastic, PVC and stone.
- Secure MASTERSTOP SK with binding wire if necessary.



MASTERSTOP SK is affixed around the pipe inside the reinforcement with 6 cm concrete cover.

FLOWSTOP

High-pressure swelling tapes



Product description

For waterproofing construction joints and penetrations in concrete structures. With a proven ability to withstand the pressure of an 80 m water column, FLOWSTOP 20 x 5 mm meets the requirements of the German directive on water-impermeable concrete structures (WU Directive) for a continuous pressure of 2 bar, as well as international standards that require high pressure resistance.



- European Technical Assessment ETA
- General Building Supervisory Test Certificate
- Suitable for zones with frequently varying water levels
- Good chemical resistance
- Dimensionally stable

- Maximum pressure of 80 m water column with size 20 x 5 mm
- Long-term testing for more than 250 days
- Easy installation with POWER swelling tape adhesive
- No foundation curb required
- Chemical basis: Modified TPE
- Temperature range: -30°C to +60°C
- Storage: Dry and protected

Resistances of FLOWSTOP



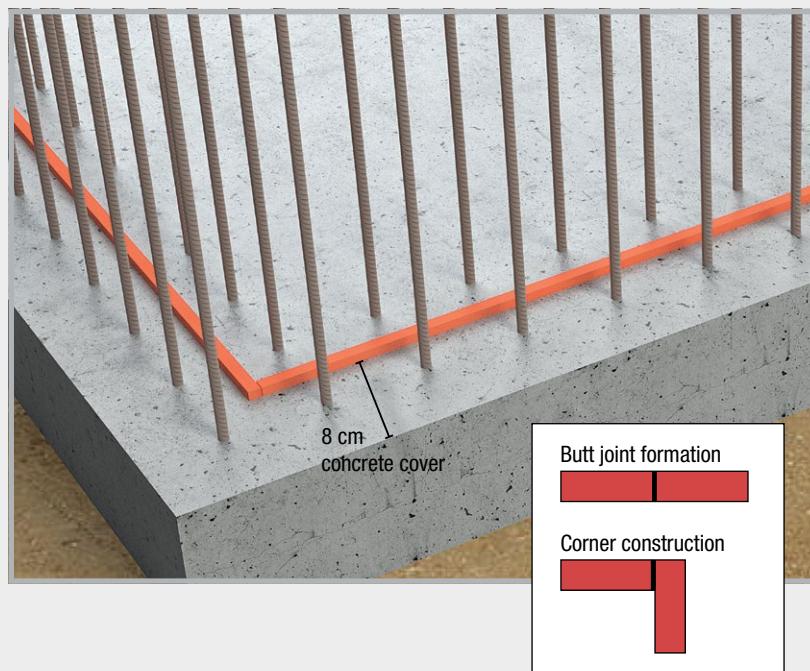
Further resistances are available on request.

Medium	resistant
Soapy water	✓
Sodium hydroxide solution	✓
Caustic potash solution	✓
Liquid manure/slurry	✓
Mineral oil 15W-40	✓
Motor oil 0W-40	✓
Hydraulic oil HVLP 46	✓
Salt water 3-4% NaCl	✓
Chlorinated water 0.95-1 mg/l	✓
Chlorinated water 10 mg/l (shock chlorination)	✓
Sodium carbonate	✓
Bitumen	✓

Installation

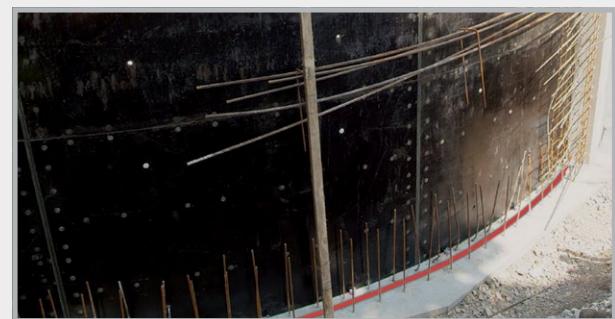
The substrate must be clean, dry and free of loose particles. Once the POWER swelling tape adhesive has been applied in the centre of the joint, the tape is placed on the adhesive and gently pressed in. A concrete cover of at least 8 cm inside the reinforcement must be ensured. Not suitable for installation with swelling tape grid.

Prior to concreting the tape must not lie in water for an extended period. Rain water that runs off does not activate the swelling.



Spray on the POWER swelling tape adhesive and place the FLOWSTOP swelling tape on top of the adhesive.

Waterproofing of a construction joint



Swelling behaviour

The swelling behaviour of FLOWSTOP was tested over 180 days through immersion in 4 test liquids.

Test liquid	Maximum expansion in all test cycles
Neutral liquid with pH value 7	600%
Alkaline liquid with pH value 13	350%
Liquid aggressive to concrete with pH value 4.5	200%
Salt water	100%



The final expansion was reached after 6 to 10 days, depending on the test liquid. These periods provide adequate time for secure installation.

FLOWSTOP test procedure

Water pressure [bar]	Test duration days	Water passage	Remarks
0.03	3	not measurable	Adjustment of the construction joint to 0.25 mm and water filling without pressure Water penetration from all sides, quickly reducing with increased swelling
0.2	1	0	Start of the first exposure to pressurised water
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
–	43	–	Six weeks of drying with hot air supply
0.03	3	0	Water filling without pressure, impermeable
0.2	1	0	Start of the second exposure to pressurised water, impermeable
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable

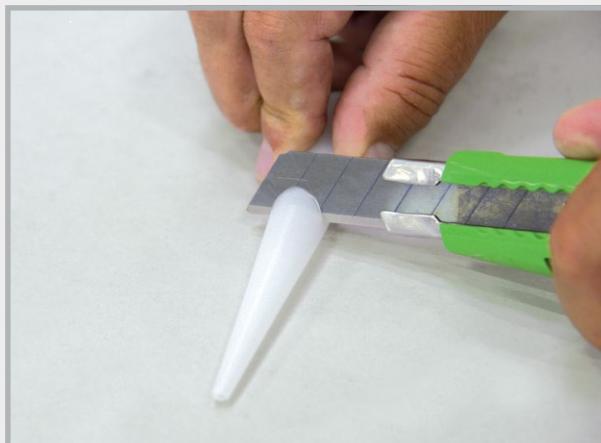
Water pressure [bar]	Test duration days	Water passage	Remarks
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
–	43	–	Six weeks of drying with hot air supply
0.03	3	0	Water filling without pressure, impermeable
0.2	1	0	Start of the third exposure to pressurised water, impermeable
0.4	1	0	impermeable
0.6	1	0	impermeable
0.8	1	0	impermeable
1.0	3	0	impermeable
2.0	1	0	impermeable
3.0	1	0	impermeable
4.0	1	0	impermeable
5.0	14	0	impermeable
6.0	28	0	Additional pressure level, impermeable
7.0	28	0	Additional pressure level, impermeable
8.0	28	0	Additional pressure level, impermeable

Adhesives and swelling pastes

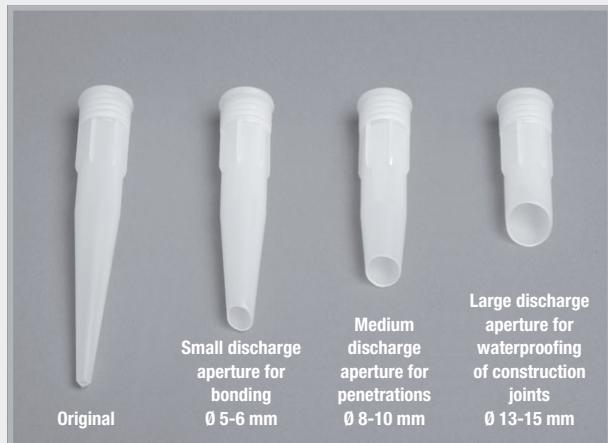
MASTERTEC produces adhesives for swelling tapes and swelling pastes for waterproofing various types and qualities of construction joints and wall penetrations.

Preparatory work

Cutting the cartridge tips



The nozzle is cut off to suit the various areas of application.

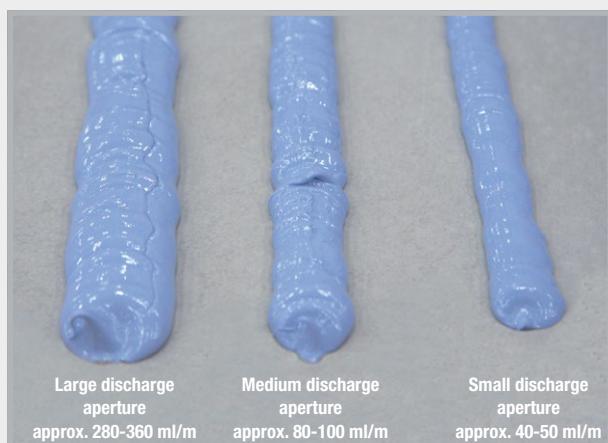


Cuts

Application of the adhesive or pastes



Example: Large discharge aperture
Usage approx. 280-360 ml/m



Swelling tape adhesive

Single-component, solvent-free sealant for bonding of MASTERSTOP bentonite swelling tapes.

Usage:	40-50 ml/m Δ approx. 7 m per cartridge
Application:	For dry and slightly moist substrates
Bonds with:	Concrete
Application temperature:	+5°C to +45°C
Thermal stability after curing:	-20°C to +70°C
Setting time:	approx. 8 hrs. at +20°C
Environmental aspects:	Once cured, the product is odourless and physiologically harmless.
Supplied as:	Cartridge 310 ml



Apply adhesive to clean substrate



Position the swelling tape

POWER swelling tape adhesive

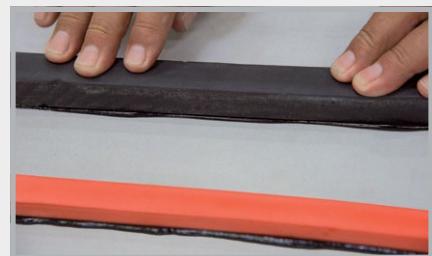
Single-component solvent-free sealant for bonding of MASTERSTOP and FLOWSTOP swelling tapes or for fixing the foil flange.

The POWER version is a high-pressure adhesive.

Usage:	40-50 ml/m = approx. 7 m per cartridge
Application:	for dry and damp substrates
Bonds with:	Concrete, steel, rigid PVC, soft PVC, stone
	Achieves a very high mechanical strength.
Application temperature:	+5°C to +45°C
Thermal stability after curing:	-30°C to +80°C
Setting time:	approx. 8 hrs. at +20°C
Environmental aspects:	Once cured, the product is odourless and physiologically harmless.
	Highly recommended environmentally compatible building product
Supplied as:	Cartridge 310 ml



Press the swelling tape into the adhesive bed



POWER high-pressure adhesive for MASTERSTOP and FLOWSTOP swelling tapes



MasterMastic PU swelling paste

Single-component, swellable polyurethane paste for sealing construction joints and penetrations in water-impermeable concrete structures or for fixing swelling tapes:

Art. no. 010030
310 ml cartridge



- For dry and damp substrates
- Solvent-free
- Application: +5°C to +45°C
- Physiologically harmless
- Setting speed:
approx. 6 – 7 mm/24 hrs.



Openings

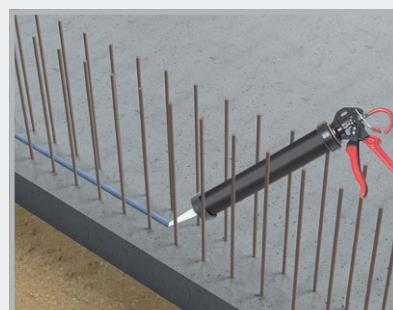
**Certified waterproofing up to 40 m water column
(test report MFPA Leipzig)**

Application: Circular Ø approx. 8-10 mm

Usage: approx. 80-100 ml/m

Adheres to: Concrete, steel, stone, hard PVC
Not suitable for polypropylene!

Installation: Inside the reinforcement with at least 8 cm concrete cover
Protect against premature swelling from moisture and rain.



Construction joints

General Building Supervisory Test Certificate according to WU guideline up to 20 m water column

Application: Bead approx. 35 x 12 mm

Usage: approx. 300-350 ml/m*

Adheres to: Dust-free, dry or matt damp concrete surfaces

Installation: Inside the reinforcement with at least 8 cm concrete cover
Protect against premature swelling from moisture and rain.



Fixing of swelling tape

Application: Bead Ø approx. 6-8 mm

Usage: approx. 45 – 50 ml/m*

Adheres to: Dust-free, dry or matt damp concrete surfaces

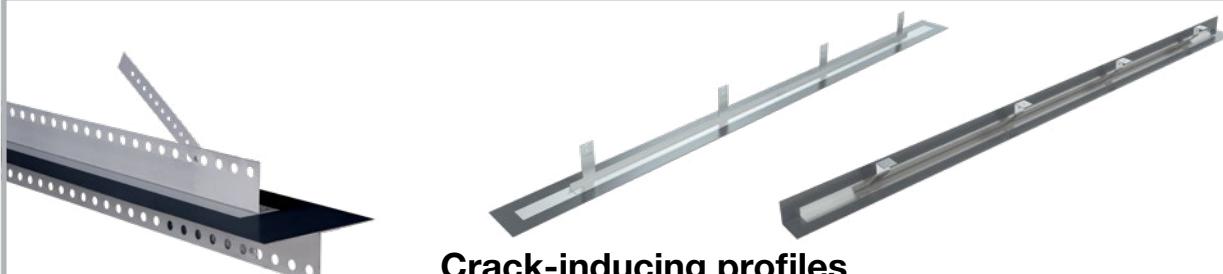
* Depending on the concrete roughness

JOINT SHEET METALS



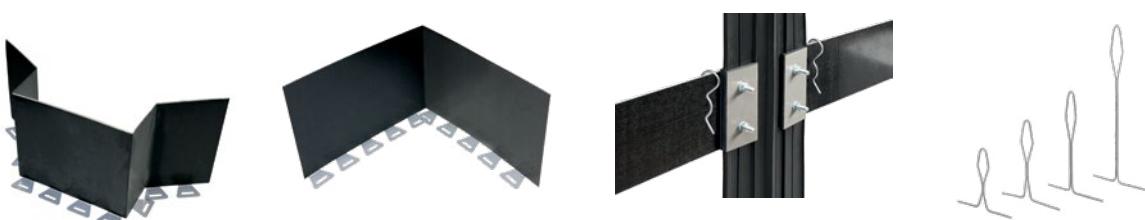
Coated joint sheet metals

pages 26 – 29



Crack-inducing profiles

pages 30 – 31



Accessories for coated joint sheet metals

pages 31 – 32



Uncoated joint sheet metal & accessories/joint tape & accessories

pages 33 – 35



Rib laths, formwork systems & accessories

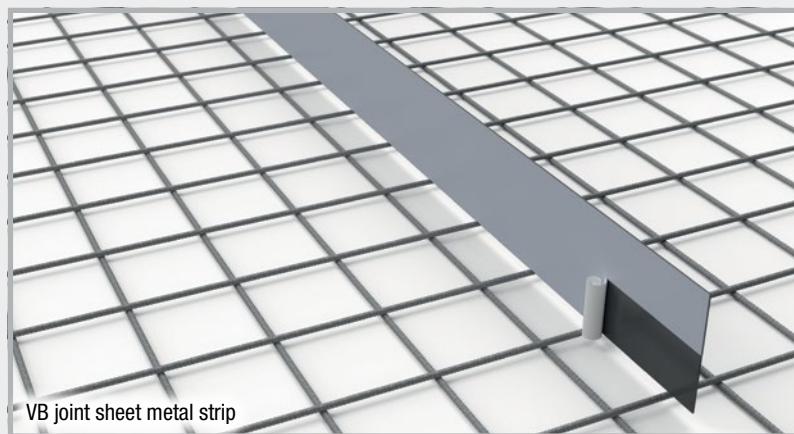
pages 36 – 73

Coated joint sheet metals

High-pressure VB joint sheet metals

Joint sheet metals with reactive, bitumen-free polymer coating for sealing construction joints.

- Very high-pressure water tests
- Resistance tests
- All-weather installation:
-20°C to +70°C



VB joint sheet metal (Height 160 mm)

Strips and rolls Technical details pages 74 – 75



Page 32

Order suitable
Omega bracket
Art. no. 070415

Art. no.	Description	PU	Weight	Price/m		
070430	Joint sheet metal 160 VB2 in crate Length 2.4 m, height 160 mm, 1 crate = 120 m (50 strips of 2.4 m each), fully coated on both sides, incl. 55 fixing clips	Art.Gr. 200	1 crate = 120 m 1 pallet = 12 crates	115.50 kg per crate	€8.50	
070432	Joint sheet metal 160 VB2 in crate Length 2,0 m, height 160 mm, 1 crate = 100 m (50 strips of 2 m each), fully coated on both sides, incl. 55 fixing clips	Art.Gr. 200	1 crate = 100 m 1 pallet = 12 crates	98.50 kg per crate	€8.50	
070461	Joint sheet metal roll 160 VB2 Height 160 mm, roll length 20 m, fully coated on both sides, incl. 30 omega brackets and 2 fixing clips	Art.Gr. 201	1 roll = 20 m per carton 1 pallet = 36 cartons	18.50 kg per carton	€9.40	
070460	Joint sheet metal roll 160 VB1 Height 160 mm, roll length 20 m, fully coated on one side, incl. 30 omega brackets and 2 fixing clips	Art.Gr. 201	1 roll = 20 m per carton 1 pallet = 36 cartons	17.80 kg per carton	€8.50	

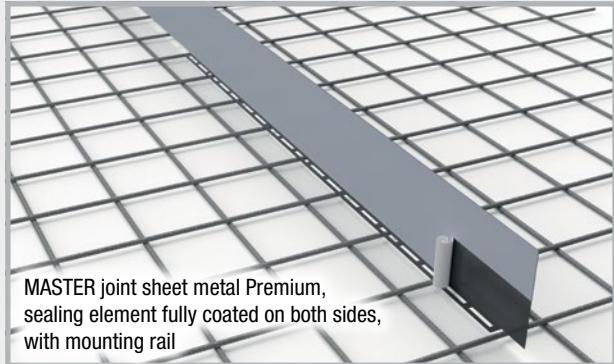


Joint sheet metal VB 160 (Height 160 mm)

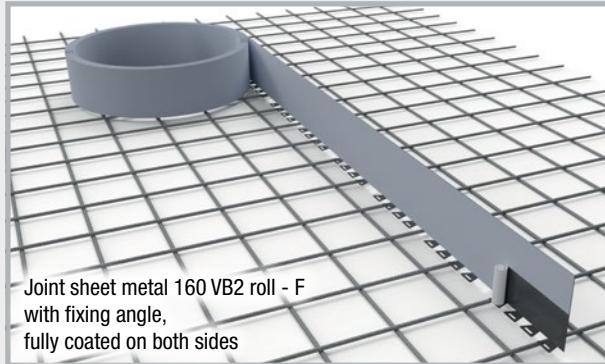
with mounting rail/fixing angle, strips and rolls



Art. no.	Description	PU	Weight	Price/m
070200	MASTER joint sheet metal Premium Length 2.5 m, height 160 mm, 1 crate = 100 m (40 strips of 2.5 m each), fully coated sealing element on both sides, with mounting rail, 20 mm perforated, incl. 55 fixing clips	Art.Gr. 203 1 crate = 100 m 1 pallet = 12 crates	142.50 kg per crate	€9.50
070468	Joint sheet metal 160 VB2 roll - F with fixing angle, Height 160 mm, roll length 20 m, fully coated on both sides, incl. 2 fixing clips	Art.Gr. 214 1 roll = 20 m per carton 1 pallet = 36 cartons	17.85 kg per carton	€9.95



MASTER joint sheet metal Premium,
sealing element fully coated on both sides,
with mounting rail



Joint sheet metal 160 VB2 roll - F
with fixing angle,
fully coated on both sides

Joint sheet metal VB 80 (Height 80 mm)

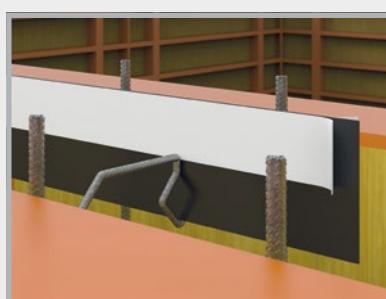
for the wall/slab connection,
strips and rolls



Page 32

Order
suitable
Omega bracket
Art. no. 070425
Art. no. 070413

Art. no.	Description	PU	Weight	Price/m
070455	Joint sheet metal 80 VB2 in crate Length 2,4 m, height 80 mm, 1 crate = 120 m (50 strips of 2.4 m each), fully coated on both sides, incl. 55 fixing clips	Art.Gr. 202 1 crate = 120 m 1 pallet = 12 crates	65.00 kg per crate	€9.20 €
070456	Joint sheet metal 80 VB2 roll Height 80 mm, roll length 20 m fully coated on both sides, incl. 2 fixing clips	Art.Gr. 213 1 roll = 20 m per carton 1 pallet = 48 cartons	8.56 kg per carton	€9.20



Joint sheet metal VB 120 (Height 120 mm)

Joint sheet metal VB 240 (Height 240 mm)

Rolls

Technical details pages 74 – 75

Art.Gr.
213



Art. no.	Description	PU	Weight	Price/m
070464	Joint sheet metal 120 VB2 roll Height 120 mm, roll length 20 m, fully coated on both sides, incl. 30 omega brackets and 2 fixing clips	1 roll = 20 m per carton 1 pallet = 48 cartons	13.50 kg per carton	€8.40
070463	Joint sheet metal 120 VB1 roll Height 120 mm, roll length 20 m, fully coated on one side, incl. 30 omega brackets and 2 fixing clips	1 roll = 20 m per carton 1 pallet = 48 cartons	13.05 kg per carton	€7.75
070462	Joint sheet metal 240 VB2 roll Height 240 mm, roll length 20 m, fully coated on both sides, incl. 30 omega brackets and 4 fixing clips	1 roll = 20 m per carton 1 pallet = 24 cartons	26.75 kg per carton	€14.80

Wherever required, we supply the rolls **incl.** the required omega brackets as standard.

Prices for the version without omega brackets can be found in our Excel price list.

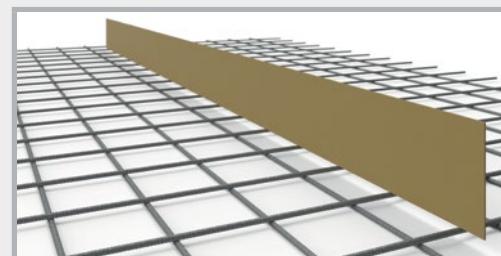
MB joint sheet metal

Mineral-coated joint sheet metal for
waterproofing of construction joints

Technical details page 77



Art.Gr.
204



Art. no.	Description	PU	Weight	Price/m	Page 32
070481	Joint sheet metal MB 160, overlap type Length 2.4 m, height 160 mm, 1 crate = 120 m (50 strips of 2.4 m each), with full mineral coating on both sides, incl. 55 fixing clips	1 crate = 120 m 1 pallet = 12 crates	130.50 kg per crate	€8.45	Order suitable Omega bracket Art. no. 070415

AKTIV joint sheet metal

The active, bentonite-coated joint sheet metal

Technical details page 78



Art.Gr.
205



Art. no.	Description	PU	Weight	Price/m
070490	AKTIV joint sheet metal Roll length 10 m, height 160 mm, fully coated on one side with bentonite, incl. 20 omega brackets , 4 fixing clips and 0.75 m adhesive tape for bonding of joints	1 roll = 10 m per carton 1 pallet = 36 cartons incl. fastening material	14.70 kg per carton	€16.30

MASTER-MultiFlex (MMF 140)

Certified active joint tape for waterproofing of construction joints in concrete

Technical details pages 79 – 80

Art.Gr.
212

Art. no.	Description	PU	Weight	Price/m	
080646	MMF 140 MASTER-MultiFlex Construction joint tape with additional swelling profile Height 140 mm, Roll length 25 m, with adhesive tape for bonding of joints and 2 fixing clips	1 roll = 25 m per carton 1 pallet = 32 cartons	36.00 kg per carton	€9.95	
080647	MMF 140 Omega bracket System-related omega brackets to secure the MMF 140 in position on the reinforcement, Requires approx. 2 pcs. per metre	1 sack of 50 pcs.	3.90 kg per sack	€0.80 per pc.	
070605	MMF 140 MASTER-Connect "active" Joint tape connector with additional swelling tape	1 pc.	1.80 kg per pc.	€37.80 per pc.	

VB joint sheet metal JGS
(slurry/liquid manure/silage effluent)

The joint sheet metal for storage and filling facilities of slurry/liquid manure/silage effluent and biogas facilities with national technical approval (abZ)

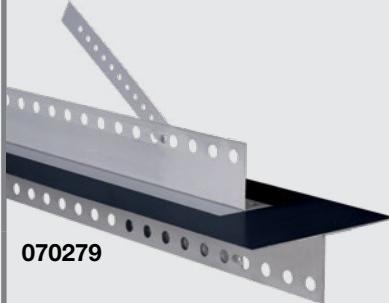
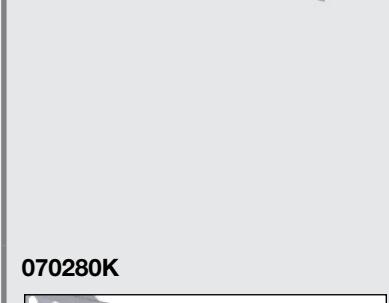
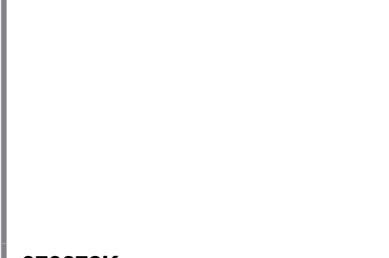
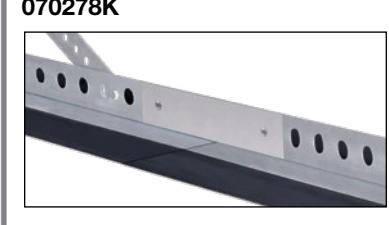
National technical approval (abZ): Z-74.101-209 Technical details page 81Art.Gr.
220

Art. no.	Description	PU	Weight	Price/m	
070476	VB joint sheet metal JGS, roll Length 20 m, height 160 mm, Joint sheet metal fully coated on both sides, incl. 2 fixing clips	1 roll = 20 m per carton 1 pallet = 36 cartons	18.50 kg per carton	€8.65 Suitable omega bracket Art. no. 070415 page 32	
070477	VB joint sheet metal JGS, roll - F Length 20 m, height 160 mm, Joint sheet metal fully coated on both sides, with fixing angle, incl. 2 fixing clips	1 roll = 20 m per carton 1 pallet = 36 cartons	17.85 kg per carton	€9.95	
070475	VB joint sheet metal JGS, strips Length 2.4 m, height 160 mm, 1 crate = 120 m (50 strips of 2.4 m each), Joint sheet metal fully coated on both sides, incl. 55 fixing clips	1 crate = 120 m 1 pallet = 12 crates	115.50 kg per crate	€8.50 Suitable omega bracket Art. no. 070415 page 32	

Crack-inducing profiles

Technical details pages 82 – 83

Art.Gr.
215

Art. no.	Description	PU	Weight	Price/m
070280    	SRF 125 Multi In-situ concrete wall type, Coated crack-inducing profile, Length: 2.5 m incl. 2 fixing clips with perforated support rail and perforated foldable retaining plates Type for in-situ concrete walls, Wall thicknesses up to 36.5 cm	1 pc. 1 pallet = 120 pcs.	4.85 kg per pc.	€31.00
070279 	SRF 125 Multi In-situ concrete wall type, Coated crack-inducing profile, Length: 3.0 m incl. 2 fixing clips with perforated support rail and perforated foldable retaining plates Type for in-situ concrete walls, Wall thicknesses up to 36.5 cm	1 pc. 1 pallet = 120 pcs.	5.80 kg per pc.	€31.00
070280K 	SRF 125 Multi short piece In-situ concrete wall type, extension set Length: 0.6 m incl. suitable connection set, Consists of: 2 pcs. connecting plates, 4 pcs. self-tapping screws		1.10 kg per pc.	€37.00 per pc.
070278    	SRF 125 Multi Cavity wall type, Coated crack-inducing profile, Length: 2.5 m incl. 2 fixing clips with perforated support rail and perforated foldable retaining plates Type for cavity walls, Wall thicknesses up to 40 cm	1 pc. 1 pallet = 120 pcs.	4.00 kg per pc.	€30.50
070277 	SRF 125 Multi Cavity wall type, Coated crack-inducing profile, Length: 3.0 m incl. 2 fixing clips with perforated support rail and perforated foldable retaining plates Type for cavity walls, Wall thicknesses up to 40 cm	1 pc. 1 pallet = 120 pcs.	4.75 kg per pc.	€30.50
070278K 	SRF 125 Multi short piece Cavity wall type, Extension set, Length: 0.6 m incl. suitable connection set, Consists of: 2 pcs. connecting plates, 4 pcs. self-tapping screws		0.93 kg per pc.	€36.00 per pc.

Up to a **wall thickness** of **300 mm** also suitable for
use in **corner butt joint**; **MASTER joint sheet metal**
Premium corner element FB (art. no. 070416)
required (see technical details, page 83)

Crack-inducing profiles

Technical details pages 84 – 85

Art.Gr.
206HYDROPHILIC
WATERSTOPPS

2

JOINT SHEET METALS

3

INJECTION HOSES
CONSTRUCTION CHEMISTRY

4

SERVICE DUCTS

5

LIGHTNING
PROTECTION

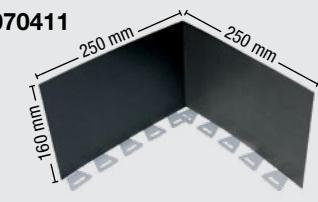
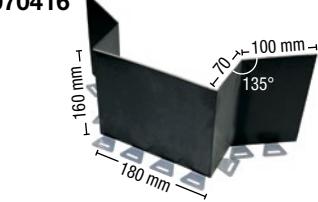
6

FORMWORK
ACCESSORIES

Art. no.	Description	PU	Weight	Price/m
070250 	MASTER joint sheet metal SFG Length: 2.5 m incl. 6 nail plugs 5/60 and 4 fixing clips, adjustable brackets Extension at the construction site possible Wall thicknesses up to 40 cm	1 pc. 1 pallet = 88 pcs.	4.70 kg per pc.	31.50 €
070251 	MASTER joint sheet metal SFG Length: 3.0 m incl. 6 nail plugs 5/60 and 4 fixing clips, adjustable brackets	1 pc. 1 pallet = 88 pcs.	5.62 kg per pc.	31.50 €
070260 	MASTER joint sheet metal SFE Length: 2.5 m incl. 6 nail plugs 5/60 and 4 fixing clips, adjustable brackets Extension at the construction site possible Wall thicknesses up to 40 cm	1 pc. 1 pallet = 80 pcs.	5.15 kg per pc.	33.50 €
070261 	MASTER joint sheet metal SFE Length: 3.0 m incl. 6 nail plugs 5/60 and 4 fixing clips, adjustable brackets	1 pc. 1 pallet = 80 pcs.	6.14 kg per pc.	33.50 €

Accessories for coated joint sheet metals

Art.Gr.
221

Art. no.	Description	PU	Weight	Price/pc.
070411 	MASTER joint sheet metal Premium angle 90° side length 25 x 25 cm, with fixing angle,	1 pc.	0.62 kg per pc.	€14.40
070416 	MASTER joint sheet metal Premium corner element FB with fixing angle	1 pc.	0.58 kg per pc.	€14.40

Accessories for coated joint sheet metals

Art. no.	Description	PU	Weight	Price/pc.
070413	Omega bracket for joint sheet metals up to height 125 mm	150 pcs./sack	5.85 kg per sack	€0.90
070415	up to height 160 mm	150 pcs./sack	7.80 kg	€0.90
070421	Height 161-205 mm	150 pcs./sack	8.55 kg	€0.95
070422	Height 206-330 mm	150 pcs./sack	12.30 kg	€1.10
070412	Fixing clip for securing the overlapping joints suitable for height 80 + 120 mm	1 bag of 55 pcs.	1.90 kg per bag	€0.60
070410	suitable for height 160 + 240 mm	1 bag of 55 pcs.	3.10 kg per bag	€0.60
NEW! 070425	Mounting bracket joint sheet metal - wall crown	1 bundle = 50 pcs.	4.00 kg per bundle	€1.40
070230	Joint sheet metal/ joint tape connector transition from joint sheet metal to joint tape Technical details page 97	1 set = 2 pcs.	2.50 kg per set	€57.00 per set = €28.50 per pc.
070240	MASTER adhesive tape for joint sheet metal Adhesive tape for securing joints and crossing points, thickness 1.5 mm, roll length 10 m, width 38 mm	1 carton of 16 rolls	0.95 kg per roll	€30.00 per roll

Uncoated joint sheet metals

in accordance with the WU directive

The DAfStb guideline "Water-Impermeable Concrete Structures" (WU guideline) requires a sheet thickness of at least 1.5 mm for uncoated joint sheet metals as construction joint waterproofing in water-impermeable structures. The following sheet height requirements apply for stress class 1 and service class A:

≥ 250 mm: up to 3 m water pressure height

≥ 300 mm: 3 m to 10 m water pressure height

The sheets must be embedded with half their height on both sides of the joint.

Small coils

Uncoated joint sheet metal, black, as roll material with 30 m length



Art.Gr.
209

Art. no.	Description	PU	Secondary packaging	Weight per roll	Price
070175	Joint sheet metal, black, 1.5 x 250 mm in accordance with the WU directive	1 roll of 30 m	1 pallet = 12 rolls	90.00 kg	available on request
070176	Joint sheet metal, black, 1.5 x 300 mm in accordance with the WU directive	1 roll of 30 m	1 pallet = 10 rolls	108.00 kg	available on request
070177	Joint sheet metal, black, 2.0 x 200 mm	1 roll of 30 m	1 pallet = 12 rolls	96.00 kg	available on request
070178	Joint sheet metal, black, 2.0 x 250 mm in accordance with the WU directive	1 roll of 30 m	1 pallet = 10 rolls	120.00 kg	available on request
070180	Joint sheet metal, black, 2.0 x 300 mm in accordance with the WU directive	1 roll of 30 m	1 pallet = 8 rolls	144.00 kg	available on request
070090	Joint sheet metal, galvanised, 0.6 x 100 mm	1 roll of 30 m	1 pallet = 60 rolls	14.40 kg	available on request
070100	Joint sheet metal, galvanised, 0.6 x 125 mm	1 roll of 30 m	1 pallet = 60 rolls	18.00 kg	available on request
070110	Joint sheet metal, galvanised, 0.6 x 150 mm	1 roll of 30 m	1 pallet = 48 rolls	21.60 kg	available on request
070120	Joint sheet metal, galvanised, 0.6 x 200 mm	1 roll of 30 m	1 pallet = 36 rolls	28.80 kg	available on request
070181	Joint sheet metal, galvanised, 2.0 x 300 mm	1 roll of 30 m	1 pallet = 8 rolls	153.85 kg	available on request

Black joint sheet metals with a min. thickness of 1.5 mm and a min. height of 250 mm comply with the German WU directive for Water-Impermeable Concrete Buildings. Sheets with smaller dimensions and galvanised sheets do not comply with the directive for water-impermeable structures.

Joint sheet metal, strip material

Uncoated joint sheet metal, black, as strip material with 2.5 m length in accordance with the German WU directive for Water-Impermeable Concrete Structures

Art.Gr.
231

Art. no.	Description	PU	Weight per strip	Price
131105	Joint sheet metal strips black, 1.5 x 250 mm, length 2.5 m	1 strip of 2.5 m	7.50 kg	available on request
131205	Joint sheet metal strips black, 1.5 x 300 mm, length 2.5 m	1 strip of 2.5 m	9.00 kg	available on request
131305	Joint sheet metal strips black, 2.0 x 250 mm, length 2.5 m	1 strip of 2.5 m	9.50 kg	available on request
131405	Joint sheet metal strips black, 2.0 x 300 mm, length 2.5 m	1 strip of 2.5 m	11.50 kg	available on request

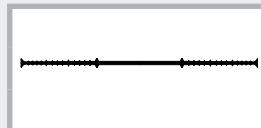
Suitable installation and joining accessories for the roll and strip products can be found on page 35.

Joint tape, factory standard PVC

Construction joint tape, internal

Art.Gr.
211

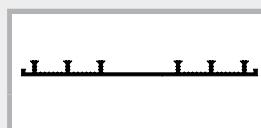
Type	Tape width	Roll length	PU	Weight per roll	PVC Factory standard	Price/m
A 19	190 mm	25 m	1 pc.	22.50 kg	080500	€9.10
A 24	240 mm	25 m	1 pc.	30.00 kg	080510	€11.20
A 32	320 mm	25 m	1 pc.	45.00 kg	080520	€18.00



Construction joint tape, external

Art.Gr.
211

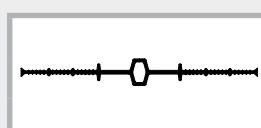
AA 19	190 mm	25 m	1 pc.	29.00 kg	080530	€11.70
AA 24	240 mm	25 m	1 pc.	40.00 kg	080540	€15.00
AA 32	320 mm	25 m	1 pc.	57.50 kg	080550	€22.00



Expansion joint tape, internal

Art.Gr.
211

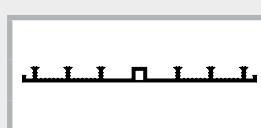
D 19	190 mm	25 m	1 pc.	28.75 kg	080650	€10.50
D 24	240 mm	25 m	1 pc.	37.50 kg	080660	€14.00
D 32	320 mm	25 m	1 pc.	57.50 kg	080670	€21.00



Expansion joint tape, external

Art.Gr.
211

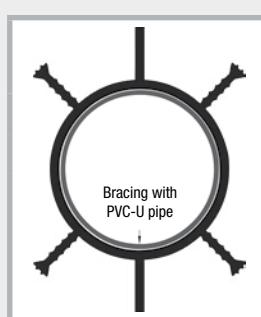
DA 19	190 mm	25 m	1 pc.	36.25 kg	080680	€13.00
DA 24	240 mm	25 m	1 pc.	45.00 kg	080690	€17.00
DA 32	320 mm	25 m	1 pc.	62.50 kg	080700	€22.50



Crack inducer tubes

Art.Gr.
211

Art. no.	Type	Diameter/mm	Pipe length	PU	Pipe weight	Price/m
080712	Q 1	88 WS 24 - 35	3.0 m	1 pc.	8.00 kg	€27.50



Joint tape clamp

Art.Gr.
230

Art. no.	Description	PU	Weight	Price
070510	Joint tape clamp 3 pcs. per metre and side	1 carton of 200 pcs.	1.50 kg per carton	€30.00 per 100 pcs.



MASTER-Connect

Connector for joint sheet metals and joint tapes

MASTER-Connect joint sheet metal



Technical details page 98

Art.Gr.
210

Art. no.	Description	PU	Weight/pc.	Price/pc.	
070196	MASTER-Connect joint sheet metal F150 for joint sheet metal heights up to 150 mm	1 pc.	1.70 kg per pc.	€27.00	
070193	MASTER-Connect joint sheet metal F250 for joint sheet metal heights up to 250 mm	1 pc.	2.90 kg per pc.	€28.00	
070194	MASTER-Connect joint sheet metal F330 for joint sheet metal heights up to 330 mm	1 pc.	3.75 kg per pc.	€32.50	

Resistance:

- Oil and petrol
- Diluted acids and alkalis
- Liquid manure and slurry
- Fermentation mash
- Radon and methane gas

MASTER-Connect joint tape



Technical details page 98

Art.Gr.
210

Art. no.	Description	PU	Weight/pc.	Price/pc.	
070610	MASTER-Connect joint tape B250 for joint tape widths up to 250 mm	1 pc.	2.75 kg per pc.	€39.00	
070620	MASTER-Connect joint tape B330 for joint tape widths up to 330 mm	1 pc.	3.75 kg per pc.	€44.90	

Resistance:

- Diluted acids and alkalis
- Liquid manure and slurry
- Fermentation mash

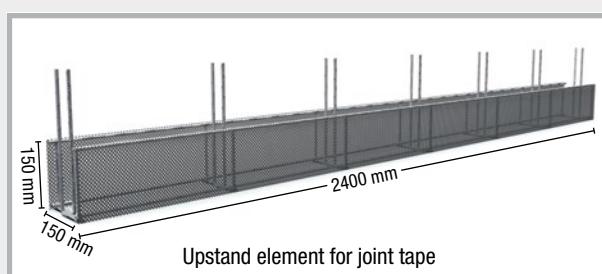
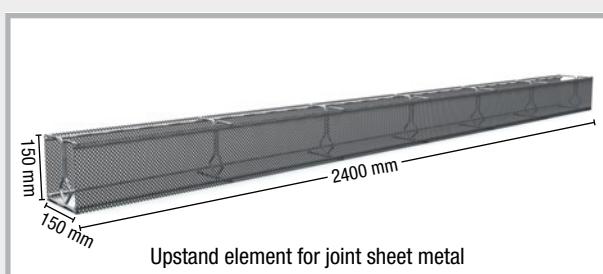
Upstand elements

Installation aid for joint sheet metals and joint tapes

Art.Gr.
224

Art. no.	Description	PU	Weight/pc.	Price/m
070650	Upstand element for joint sheet metal, rough Height 150 mm, width 150 mm, length 2400 mm, for joint sheet metals 250 and 300 mm	1 pc.	6.55 kg	€22.50
070652	Upstand element for joint tape, rough Height 150 mm, width 150 mm, length 2400 mm, for internal joint tape A24 and A32	1 pc.	8.00 kg	€27.50

Version with base or as toothed joint available on request



Rib laths

Lost formwork for construction joints in concrete

Rib lath formwork, flat-ribbed

Lost formwork/plaster base

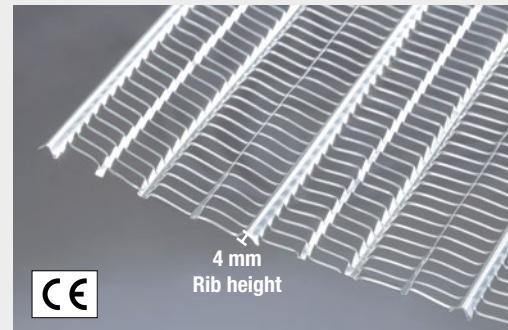
- Effective bond between concrete segments
- Highly malleable

Material: Galvanised

Rib height: 4 mm

Thickness: 0.25 mm

Sheet size: Length 250 cm, width 60 cm



Art.Gr.
226

Art. no.	Description	PU	Secondary packaging	Weight	Price/m ²
020045	Thickness 0.25 mm , galvanised Size: 250 x 60 cm = 1.5 m ² , Rib height approx. 4 mm, Identification colour: yellow	1 package of 20 sheets = 30 m ²	1 pallet of 30 packages = 900 m ²	approx. 22 kg per package 0.73 kg/m ²	€4.00

Rib lath formwork, medium-ribbed

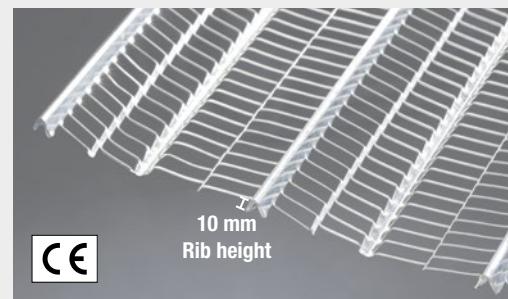
Lost formwork

- Effective bond between concrete segments
- Good malleability

Material: Galvanised

Rib height: 10 mm

Sheet size: Length 250 cm, width 60 cm



Art.Gr.
227

Art. no.	Description	PU	Secondary packaging	Weight	Price/m ²
020040	Thickness 0.30 mm , galvanised, Size: 250 x 60 cm = 1.5 m ² , Rib height approx. 10 mm, Identification colour: black	1 package of 20 sheets = 30 m ²	1 pallet of 25 packages = 750 m ²	approx. 36 kg per package 1.20 kg/m ²	€6.00

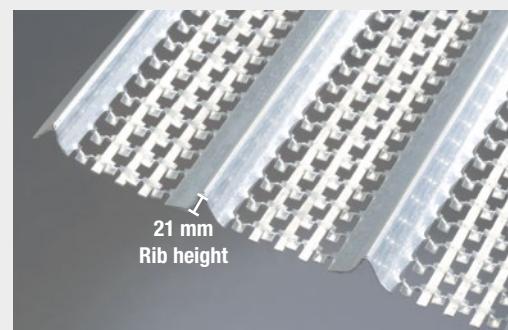
Rib lath formwork, high-ribbed

Lost formwork

- Developed for concrete construction
- Extremely stable
- Perfect bond between concrete segments
- Very good malleability

Material: Galvanised

Rib height: 21 mm



Art.Gr.
228

Art. no.	Description	PU	Secondary packaging	Weight	Price/m ²
020005	Thickness 0.3 mm , galvanised, Size: 200 x 45 cm, rib height 21 mm, Identification colour: green	1 pallet of 200 pcs. = 180 m ²	3 pallets	436 kg per pallet approx. 2.42 kg per m ²	€8.00
020010	Thickness 0.4 mm , galvanised, Size: 200 x 45 cm, rib height 21 mm, Identification colour: blue	1 pallet of 100 pcs. = 90 m ²	5 pallets	301 kg per pallet approx. 3.34 kg per m ²	€10.00
020020	Thickness 0.5 mm , galvanised, Size: 200 x 45 cm, rib height 21 mm, Identification colour: red	1 pallet of 100 pcs. = 90 m ²	4 pallets	366 kg per pallet approx. 4.06 kg per m ²	€11.00

LinkFix stopend panel

Profiled rib lath formwork as stopend panel for construction joints

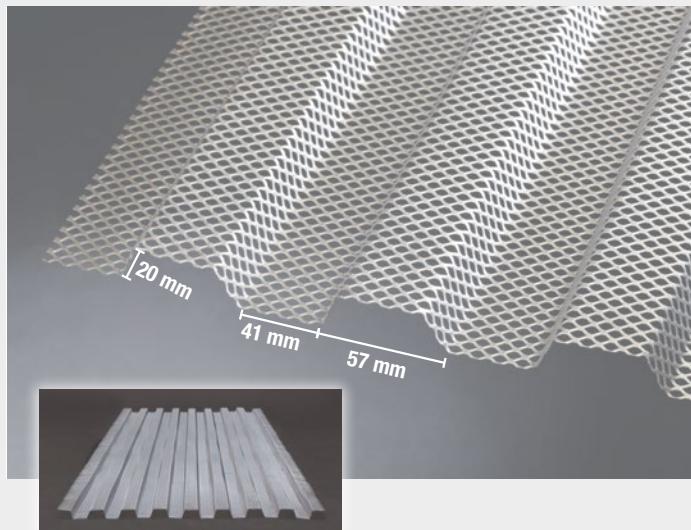
Material: Profiled rib lath formwork of bright steel, thickness 0.75 mm

Joint category: toothed according to DIN EN 1992-1-1 NA (EC2)

Profile: 57 x 41 x 20 mm

Sheet size: Length 240 cm,
width 80 cm

Art.Gr.
229



Art. no.	Description	PU	Weight	Price/m ²
020050	LinkFix thickness 0.75 mm, Size: 240 x 80 cm	1 pallet of 100 pcs. = 192 m ²	536 kg per pallet approx. 2.79 kg per m ²	€13.50

LinkForm stopend panel

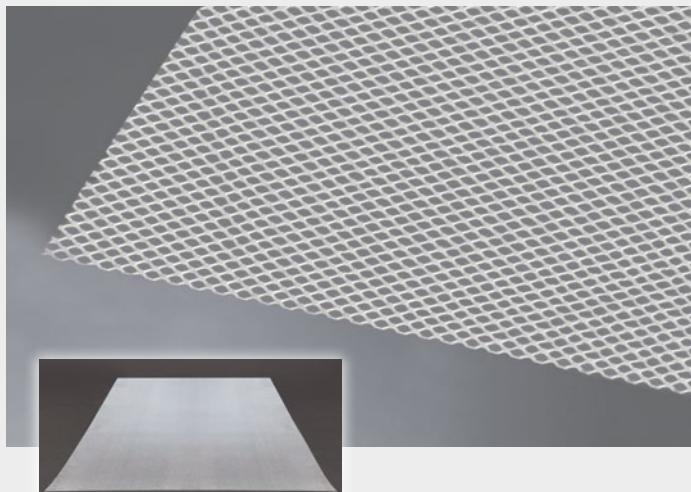
Art.Gr.
229

Rib lath formwork as stopend panel for construction joints

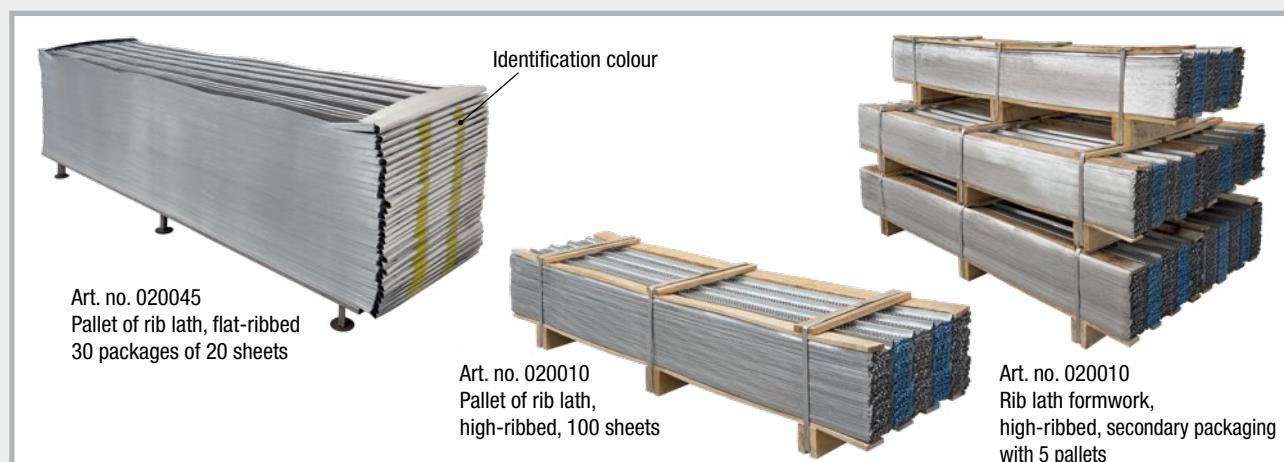
Material: Rib lath formwork of bright steel, thickness 0.75 mm.

Joint category: rough
according to DIN EN 1992-1-1 NA (EC2)

Sheet size: Length: 240 cm,
Width 100 cm



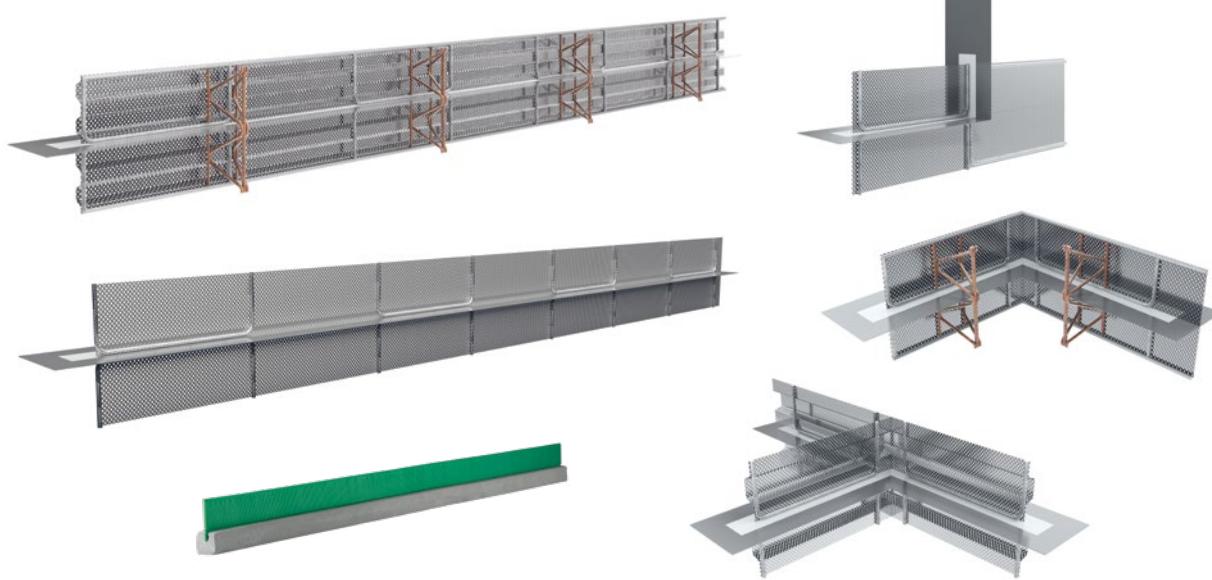
Art. no.	Description	PU	Weight	Price/m ²
070520	LinkForm Thickness 0.75 mm, Size 240 x 100 cm	1 pallet of 100 pcs. = 240 m ²	536 kg per pallet approx. 2.23 kg per m ²	€12.00



Formwork systems

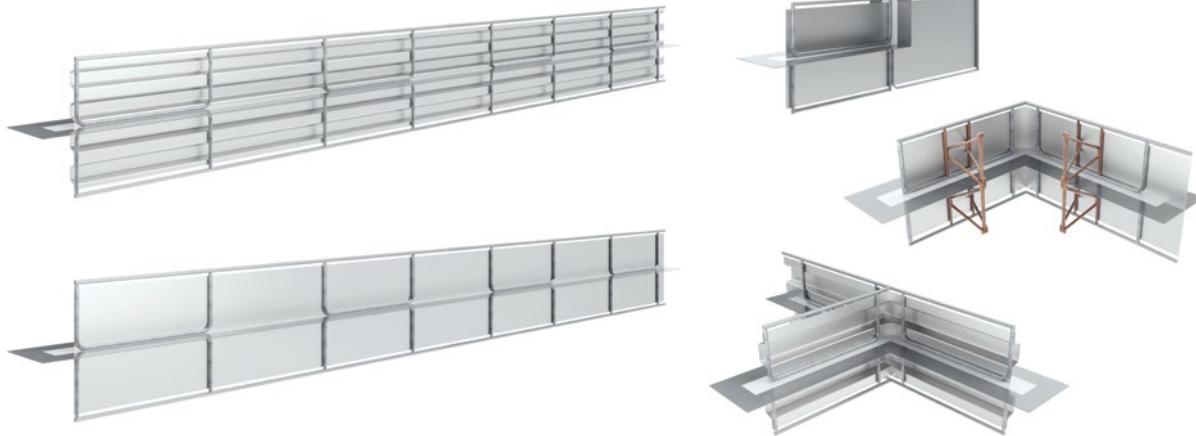
Stopend panels ABS/special profiles/accessories

pages 40 – 49



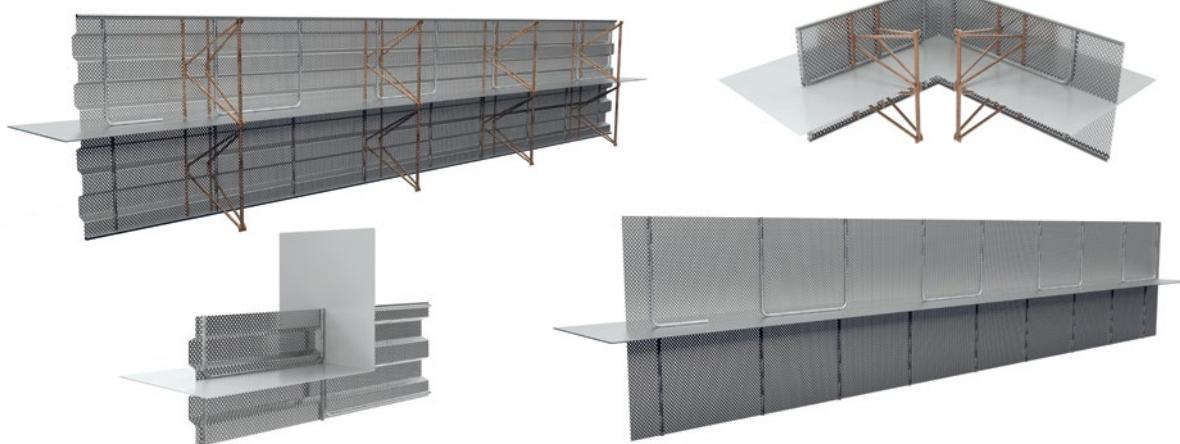
ABS crack-inducing elements

pages 50 – 51



Stopend panels with integrated uncoated joint sheet metal

pages 52 – 55

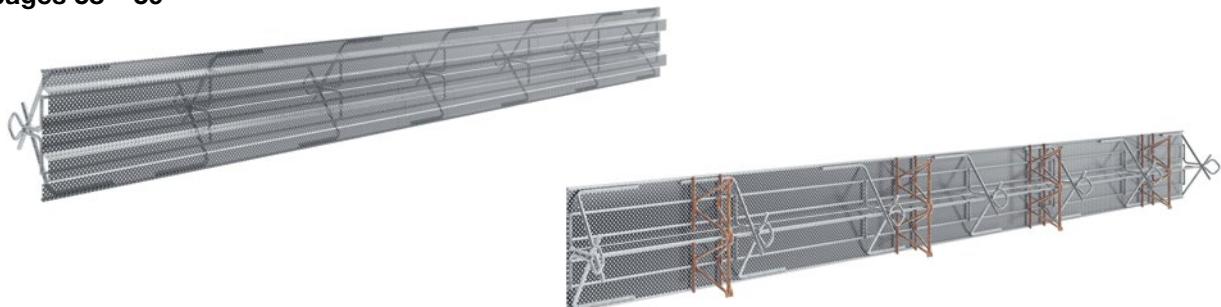


Stopend panels and crack-inducing elements LinkFix/LinkForm

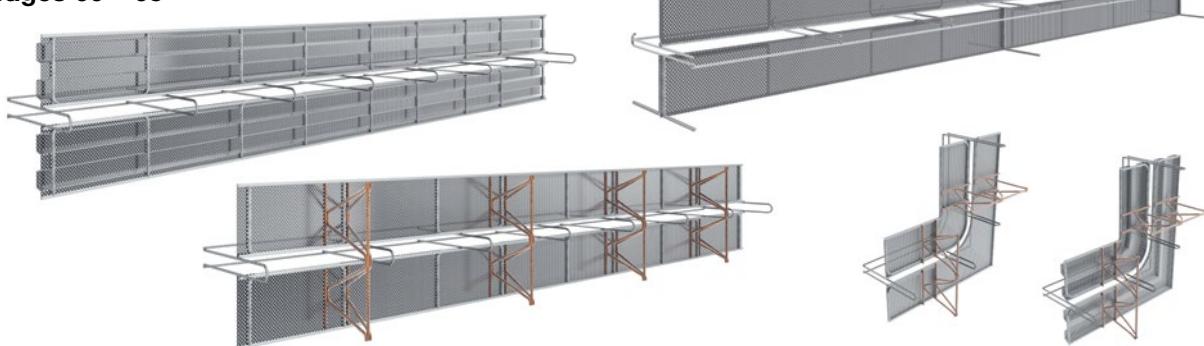
pages 56 – 57

**ABS joint sheet metal cage**

pages 58 – 59

**ABS joint tape cage**

pages 60 – 65

**ABS expansion joint elements and ABS sound joint elements**

pages 66 – 73



Stopend panels ABS

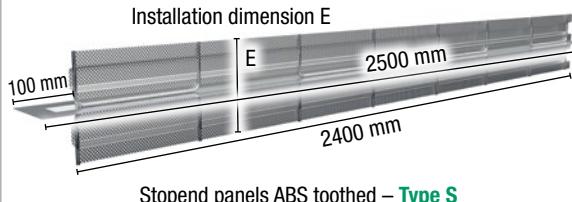
Stopend panels ABS toothed

with joint sheet metal coated on both sides Technical details pages 86 – 88



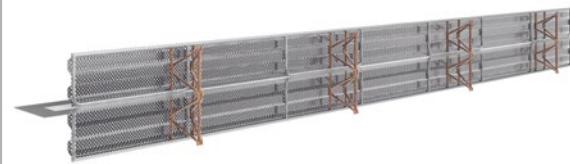
Art.Gr.
207

Type S = Standard braced



Stopend panels ABS toothed – Type S

Type V = Reinforced version



Stopend panels ABS toothed – Type V

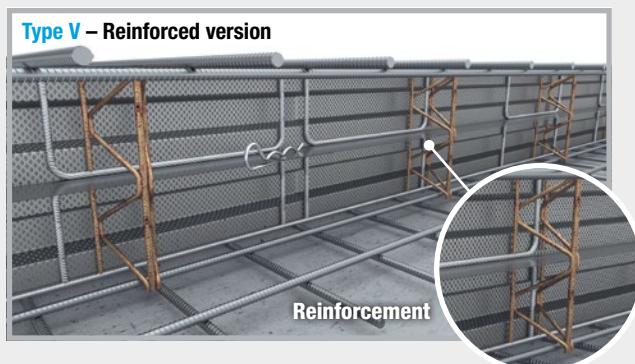
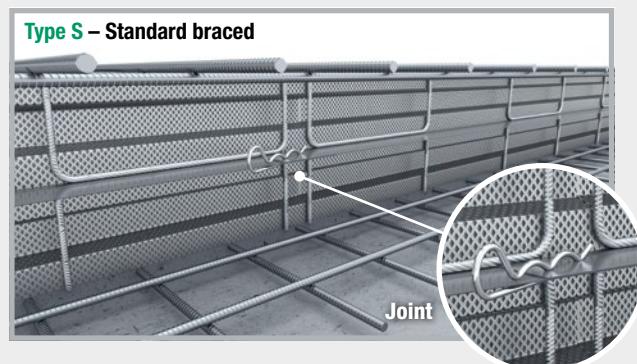
Description	Installation dimension E = Rib lath width	Length	Type S = Standard braced			Type V = Reinforced version		
			Art. no.	Weight/pc.	Price/m	Art. no.	Weight/pc.	Price/m
ABS 160 toothed	Up to 160 mm	2.5 m	070362	5.60 kg	€46.00	070362V	8.55 kg	€71.00
ABS 200 toothed	170 – 200 mm	2.5 m	070364	6.00 kg	€47.00	070364V	9.20 kg	€73.00
ABS 250 toothed	210 – 250 mm	2.5 m	070366	6.45 kg	€48.00	070366V	10.00 kg	€75.00
ABS 300 toothed	260 – 300 mm	2.5 m	070368	7.00 kg	€49.00	070368V	10.90 kg	€77.00
ABS 400 toothed	310 – 400 mm	2.5 m	070370	8.00 kg	€54.00	070370V	12.65 kg	€80.00
ABS 500 toothed	410 – 500 mm	2.5 m	070372	9.70 kg	€63.00	070372V	15.00 kg	€88.00
ABS 600 toothed	510 – 600 mm	2.5 m	070374	10.30 kg	€68.00	070374V	16.35 kg	€93.00
ABS 700 toothed	610 – 700 mm	2.5 m	070376	10.95 kg	€73.00	070376V	17.65 kg	€98.00
ABS 800 toothed	710 – 800 mm	2.5 m	070378	12.65 kg	€78.00	070378V	20.05 kg	€103.00
ABS 900 toothed	810 – 900 mm	2.5 m	070380	13.25 kg	€83.00	070380V	21.35 kg	€108.00
ABS 1000 toothed	910 – 1000 mm	2.5 m	070382	13.90 kg	€88.00	070382V	22.70 kg	€113.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

Installation situation

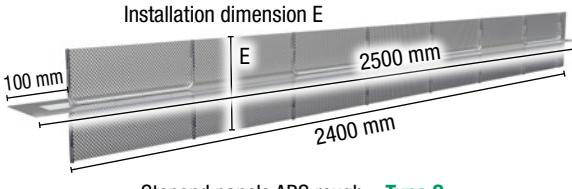


Stopend panels ABS rough

with joint sheet metal coated on both sides Technical details pages 86 – 88

Art.Gr.
207

Type S = Standard braced



Stopend panels ABS rough – Type S

Type V = Reinforced version



Stopend panels ABS rough – Type V

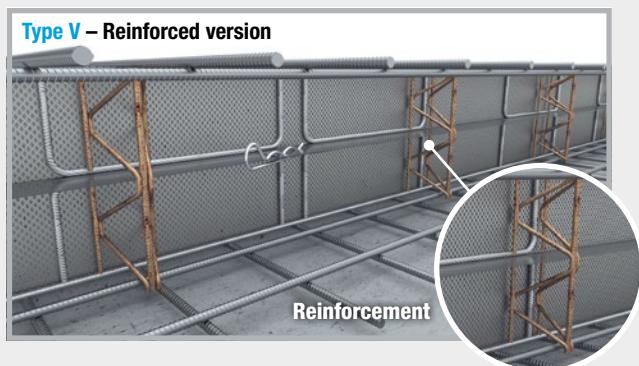
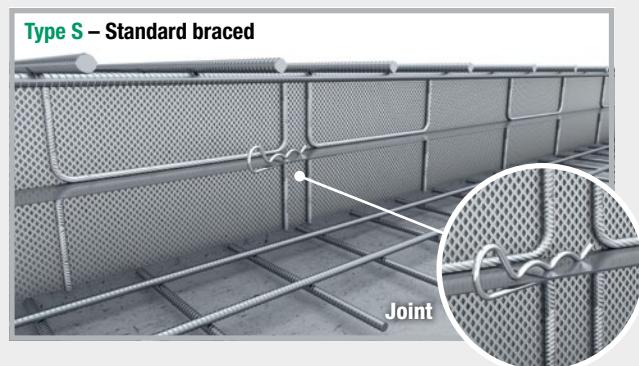
Description	Installation dimension E = Rib lath width	Length	Type S = Standard braced			Type V = Reinforced version		
			Art. no.	Weight/pc.	Price/m	Art. no.	Weight/pc.	Price/m
ABS 130 rough	Up to 130 mm	2.5 m	070281	5.15 kg	€41.00	070281V	7.80 kg	€65.00
ABS 160 rough	140 – 160 mm	2.5 m	070282	5.40 kg	€42.00	070282V	8.30 kg	€67.00
ABS 200 rough	170 – 200 mm	2.5 m	070284	5.75 kg	€43.00	070284V	8.95 kg	€69.00
ABS 250 rough	210 – 250 mm	2.5 m	070287	6.15 kg	€44.00	070287V	9.70 kg	€71.00
ABS 300 rough	260 – 300 mm	2.5 m	070289	6.60 kg	€45.00	070289V	10.50 kg	€73.00
ABS 400 rough	310 – 400 mm	2.5 m	070291	7.50 kg	€50.00	070291V	12.15 kg	€75.00
ABS 500 rough	410 – 500 mm	2.5 m	070293	9.05 kg	€55.00	070293V	14.40 kg	€80.00
ABS 600 rough	510 – 600 mm	2.5 m	070295	9.55 kg	€60.00	070295V	15.60 kg	€85.00
ABS 700 rough	610 – 700 mm	2.5 m	070297	10.05 kg	€65.00	070297V	16.80 kg	€90.00
ABS 800 rough	710 – 800 mm	2.5 m	070299	11.60 kg	€70.00	070299V	19.05 kg	€95.00
ABS 900 rough	810 – 900 mm	2.5 m	070301	12.10 kg	€75.00	070301V	20.25 kg	€100.00
ABS 1000 rough	910 – 1000 mm	2.5 m	070303	12.60 kg	€80.00	070303V	21.45 kg	€105.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

Installation situation



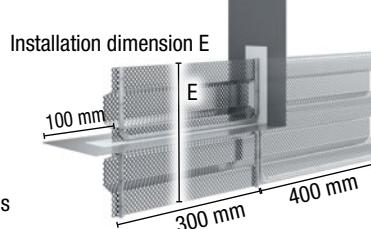
Stopend panel ABS special profiles

ABS deflection profiles (ULP) toothed

with joint sheet metal coated on both sides Technical details page 89

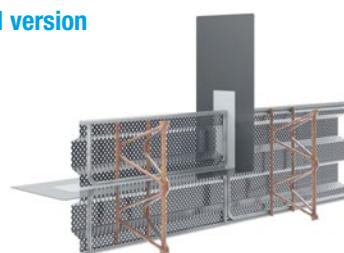
Art.Gr.
216

Type S = Standard braced



ABS deflection profiles
Toothed – **Type S**

Type V = Reinforced version



ABS deflection profiles
Toothed – **Type V**

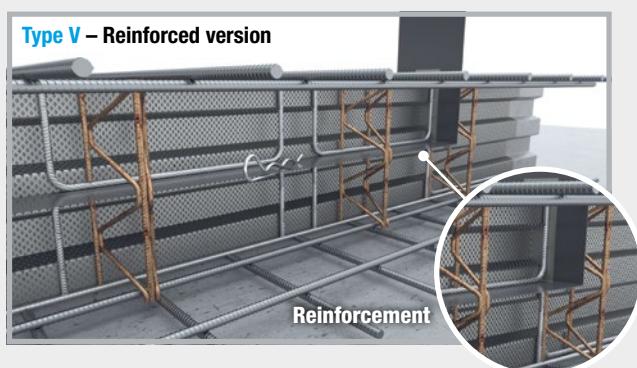
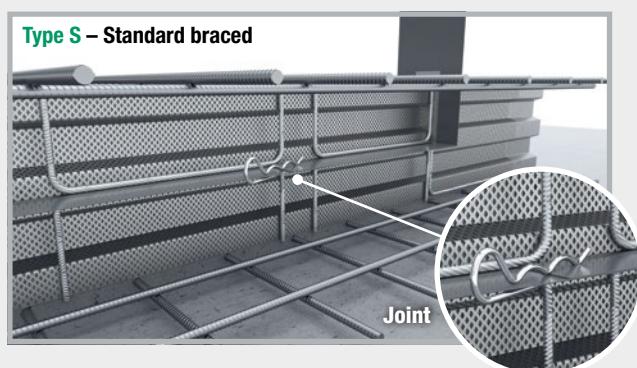
Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
ULP 160 toothed	Up to 160 mm	070387	2.05 kg	€87.00	070387V	2.65 kg	€140.00
ULP 200 toothed	170 – 200 mm	070389	2.15 kg	€88.00	070389V	2.85 kg	€143.00
ULP 250 toothed	210 – 250 mm	070391	2.30 kg	€89.00	070391V	3.15 kg	€146.00
ULP 300 toothed	260 – 300 mm	070393	2.80 kg	€90.00	070393V	3.90 kg	€149.00
ULP 400 toothed	310 – 400 mm	070395	3.20 kg	€92.00	070395V	4.60 kg	€154.00
ULP 500 toothed	410 – 500 mm	070397	3.80 kg	€94.00	070397V	5.55 kg	€159.00
ULP 600 toothed	510 – 600 mm	070399	4.05 kg	€96.00	070399V	6.15 kg	€164.00
ULP 700 toothed	610 – 700 mm	070401	4.30 kg	€98.00	070401V	6.75 kg	€169.00
ULP 800 toothed	710 – 800 mm	070403	4.90 kg	€100.00	070403V	7.70 kg	€174.00
ULP 900 toothed	810 – 900 mm	070405	5.15 kg	€102.00	070405V	8.30 kg	€179.00
ULP 1000 toothed	910 – 1000 mm	070407	5.40 kg	€104.00	070407V	8.90 kg	€184.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

Installation situation

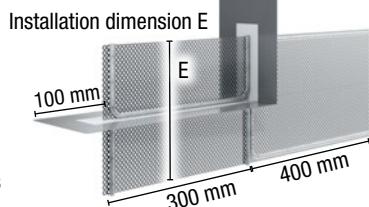


ABS deflection profiles (ULP) rough

with joint sheet metal coated on both sides [Technical details page 89](#)

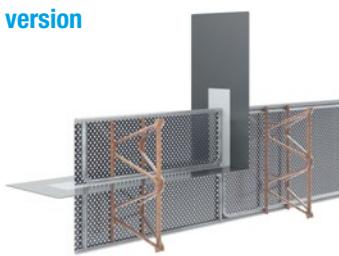
Art.Gr.
216

Type S = Standard braced



ABS deflection profiles
Rough – **Type S**

Type V = Reinforced version



ABS deflection profiles
Rough – **Type V**

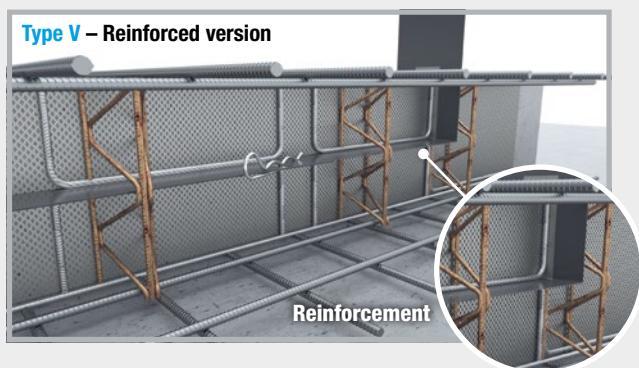
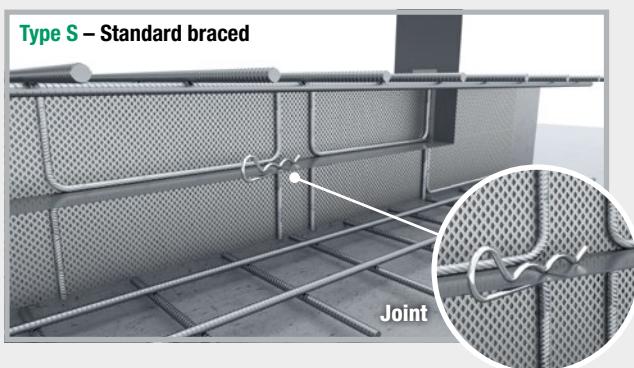
Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
ULP 130 rough	Up to 130 mm	070330	1.90 kg	€84.00	070330V	2.35 kg	€135.00
ULP 160 rough	140 – 160 mm	070333	1.95 kg	€85.00	070333V	2.55 kg	€138.00
ULP 200 rough	170 – 200 mm	070336	2.05 kg	€86.00	070336V	2.75 kg	€141.00
ULP 250 rough	210 – 250 mm	070339	2.15 kg	€87.00	070339V	3.05 kg	€144.00
ULP 300 rough	260 – 300 mm	070342	2.70 kg	€88.00	070342V	3.75 kg	€147.00
ULP 400 rough	310 – 400 mm	070345	3.05 kg	€90.00	070345V	4.45 kg	€152.00
ULP 500 rough	410 – 500 mm	070347	3.60 kg	€92.00	070347V	5.40 kg	€157.00
ULP 600 rough	510 – 600 mm	070349	3.85 kg	€94.00	070349V	5.95 kg	€162.00
ULP 700 rough	610 – 700 mm	070351	4.05 kg	€96.00	070351V	6.50 kg	€167.00
ULP 800 rough	710 – 800 mm	070353	4.60 kg	€98.00	070353V	7.40 kg	€172.00
ULP 900 rough	810 – 900 mm	070355	4.80 kg	€100.00	070355V	8.00 kg	€177.00
ULP 1000 rough	910 – 1000 mm	070357	5.00 kg	€102.00	070357V	8.55 kg	€182.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

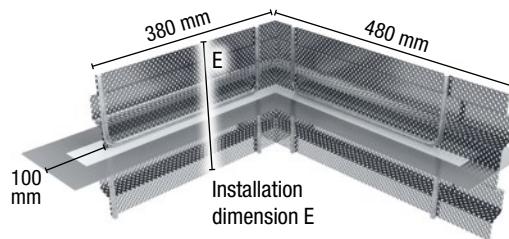
Installation situation



ABS corner profile (EP) toothed and rough

with joint sheet metal coated on both sides [Technical details page 89](#)

Type S = Standard braced



ABS corner profile toothed – Type S

Type V = Reinforced version



ABS corner profile toothed – Type V

Corner profile (EP) toothed

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
EP 160 toothed	Up to 160 mm	070740	2.40 kg	€112.00	070740V	3.60 kg	€162.00
EP 200 toothed	170 – 200 mm	070742	2.60 kg	€113.00	070742V	3.90 kg	€165.00
EP 250 toothed	210 – 250 mm	070744	2.75 kg	€114.00	070744V	4.30 kg	€168.00
EP 300 toothed	260 – 300 mm	070746	3.00 kg	€115.00	070746V	4.70 kg	€171.00
EP 400 toothed	310 – 400 mm	070748	3.45 kg	€117.00	070748V	5.50 kg	€176.00
EP 500 toothed	410 – 500 mm	070750	4.25 kg	€119.00	070750V	6.65 kg	€181.00
EP 600 toothed	510 – 600 mm	070752	4.50 kg	€121.00	070752V	7.25 kg	€186.00
EP 700 toothed	610 – 700 mm	070754	4.70 kg	€123.00	070754V	7.80 kg	€191.00
EP 800 toothed	710 – 800 mm	070756	5.50 kg	€125.00	070756V	8.95 kg	€196.00
EP 900 toothed	810 – 900 mm	070758	5.75 kg	€127.00	070758V	9.55 kg	€201.00
EP 1000 toothed	910 – 1000 mm	070760	5.95 kg	€129.00	070760V	10.10 kg	€206.00

Corner profile (EP) rough

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
EP 130 rough	Up to 130 mm	070700	2.20 kg	€109.00	070700V	3.30 kg	€157.00
EP 160 rough	140 – 160 mm	070702	2.35 kg	€110.00	070702V	3.55 kg	€160.00
EP 200 rough	170 – 200 mm	070704	2.50 kg	€111.00	070704V	3.85 kg	€163.00
EP 250 rough	210 – 250 mm	070706	2.65 kg	€112.00	070706V	4.15 kg	€166.00
EP 300 rough	260 – 300 mm	070708	2.85 kg	€113.00	070708V	4.55 kg	€169.00
EP 400 rough	310 – 400 mm	070710	3.25 kg	€115.00	070710V	5.30 kg	€174.00
EP 500 rough	410 – 500 mm	070712	4.05 kg	€117.00	070712V	6.45 kg	€179.00
EP 600 rough	510 – 600 mm	070714	4.20 kg	€119.00	070714V	6.95 kg	€184.00
EP 700 rough	610 – 700 mm	070716	4.40 kg	€121.00	070716V	7.50 kg	€189.00
EP 800 rough	710 – 800 mm	070718	5.15 kg	€123.00	070718V	8.60 kg	€194.00
EP 900 rough	810 – 900 mm	070720	5.35 kg	€125.00	070720V	9.15 kg	€199.00
EP 1000 rough	910 – 1000 mm	070722	5.50 kg	€127.00	070722V	9.70 kg	€204.00

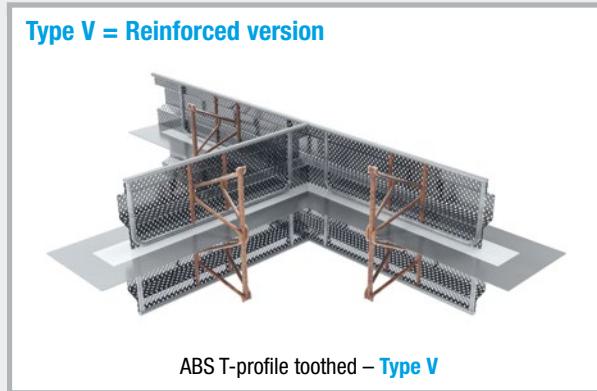
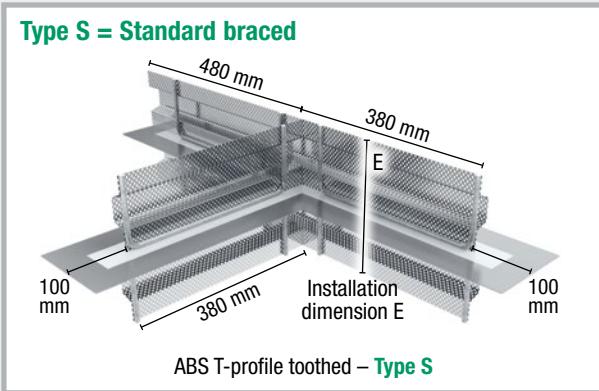
All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results. we recommend the combination with our ABS formwork comb type spacers.

ABS T profile (TP) toothed and rough

Technical details page 90

Art.Gr.
216

T profile (TP) toothed

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
TP 160 toothed	Up to 160 mm	070830	3.40 kg	€140.00	070830V	5.10 kg	€192.00
TP 200 toothed	170 – 200 mm	070832	3.60 kg	€141.00	070832V	5.55 kg	€195.00
TP 250 toothed	210 – 250 mm	070834	3.90 kg	€142.00	070834V	6.10 kg	€198.00
TP 300 toothed	260 – 300 mm	070836	4.20 kg	€143.00	070836V	6.70 kg	€201.00
TP 400 toothed	310 – 400 mm	070838	4.85 kg	€145.00	070838V	7.85 kg	€206.00
TP 500 toothed	410 – 500 mm	070840	6.00 kg	€147.00	070840V	9.55 kg	€211.00
TP 600 toothed	510 – 600 mm	070842	6.30 kg	€149.00	070842V	10.40 kg	€216.00
TP 700 toothed	610 – 700 mm	070844	6.65 kg	€151.00	070844V	11.25 kg	€221.00
TP 800 toothed	710 – 800 mm	070846	7.80 kg	€153.00	070846V	12.90 kg	€230.00
TP 900 toothed	810 – 900 mm	070848	8.10 kg	€155.00	070848V	13.75 kg	€235.00
TP 1000 toothed	910 – 1000 mm	070850	8.45 kg	€157.00	070850V	14.60 kg	€240.00

T profile (TP) rough

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
TP 130 rough	Up to 130 mm	070800	3.10 kg	€137.00	070800V	4.65 kg	€187.00
TP 160 rough	140 – 160 mm	070802	3.30 kg	€138.00	070802V	5.00 kg	€190.00
TP 200 rough	170 – 200 mm	070804	3.50 kg	€139.00	070804V	5.45 kg	€193.00
TP 250 rough	210 – 250 mm	070806	3.75 kg	€140.00	070806V	5.95 kg	€196.00
TP 300 rough	260 – 300 mm	070808	4.00 kg	€141.00	070808V	6.50 kg	€199.00
TP 400 rough	310 – 400 mm	070810	4.60 kg	€143.00	070810V	7.60 kg	€204.00
TP 500 rough	410 – 500 mm	070812	5.65 kg	€145.00	070812V	9.20 kg	€209.00
TP 600 rough	510 – 600 mm	070814	5.95 kg	€147.00	070814V	10.00 kg	€214.00
TP 700 rough	610 – 700 mm	070816	6.20 kg	€149.00	070816V	10.80 kg	€219.00
TP 800 rough	710 – 800 mm	070818	7.25 kg	€151.00	070818V	12.40 kg	€224.00
TP 900 rough	810 – 900 mm	070820	7.55 kg	€153.00	070820V	13.20 kg	€229.00
TP 1000 rough	910 – 1000 mm	070822	7.80 kg	€155.00	070822V	13.95 kg	€234.00

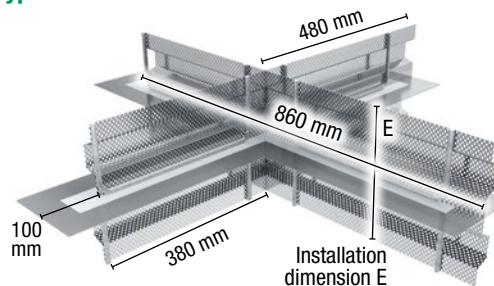
All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results. we recommend the combination with our ABS formwork comb type spacers.

ABS cross profile (KP) toothed and rough

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216**Type S = Standard braced**ABS cross-profile toothed – **Type S****Type V = Reinforced version**ABS cross-profile rough – **Type V**

Cross profile (KP) toothed

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
KP 160 toothed	Up to 160 mm	070878	4.45 kg	€148.00	070878V	6.85 kg	€204.00
KP 200 toothed	170 – 200 mm	070880	4.75 kg	€149.00	070880V	7.45 kg	€207.00
KP 250 toothed	210 – 250 mm	070882	5.10 kg	€150.00	070882V	8.15 kg	€210.00
KP 300 toothed	260 – 300 mm	070884	5.55 kg	€151.00	070884V	8.95 kg	€213.00
KP 400 toothed	310 – 400 mm	070886	6.40 kg	€153.00	070886V	10.50 kg	€218.00
KP 500 toothed	410 – 500 mm	070888	7.90 kg	€155.00	070888V	12.70 kg	€223.00
KP 600 toothed	510 – 600 mm	070890	8.35 kg	€157.00	070890V	13.85 kg	€228.00
KP 700 toothed	610 – 700 mm	070892	8.80 kg	€159.00	070892V	15.00 kg	€233.00
KP 800 toothed	710 – 800 mm	070894	10.30 kg	€161.00	070894V	17.20 kg	€245.00
KP 900 toothed	810 – 900 mm	070896	10.75 kg	€163.00	070896V	18.35 kg	€252.00
KP 1000 toothed	910 – 1000 mm	070898	11.20 kg	€165.00	070898V	19.55 kg	€260.00

Cross profile (KP) rough

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight/pc.	Price/pc.	Art. no.	Weight/pc.	Price/pc.
KP 130 rough	Up to 130 mm	070852	4.05 kg	€145.00	070852V	6.25 kg	€199.00
KP 160 rough	140 – 160 mm	070854	4.30 kg	€146.00	070854V	6.70 kg	€202.00
KP 200 rough	170 – 200 mm	070856	4.55 kg	€147.00	070856V	7.25 kg	€205.00
KP 250 rough	210 – 250 mm	070858	4.90 kg	€148.00	070858V	7.95 kg	€208.00
KP 300 rough	260 – 300 mm	070860	5.25 kg	€149.00	070860V	8.65 kg	€211.00
KP 400 rough	310 – 400 mm	070862	6.05 kg	€151.00	070862V	10.15 kg	€216.00
KP 500 rough	410 – 500 mm	070864	7.45 kg	€153.00	070864V	12.25 kg	€221.00
KP 600 rough	510 – 600 mm	070866	7.80 kg	€155.00	070866V	13.30 kg	€226.00
KP 700 rough	610 – 700 mm	070868	8.15 kg	€157.00	070868V	14.40 kg	€231.00
KP 800 rough	710 – 800 mm	070870	9.60 kg	€159.00	070870V	16.50 kg	€240.00
KP 900 rough	810 – 900 mm	070872	9.95 kg	€161.00	070872V	17.55 kg	€250.00
KP 1000 rough	910 – 1000 mm	070874	10.30 kg	€163.00	070874V	18.65 kg	€260.00

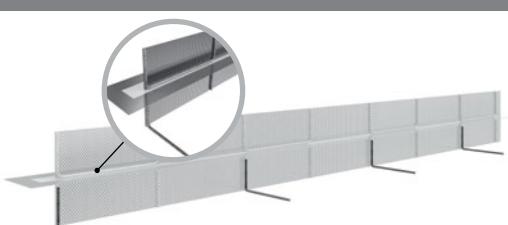
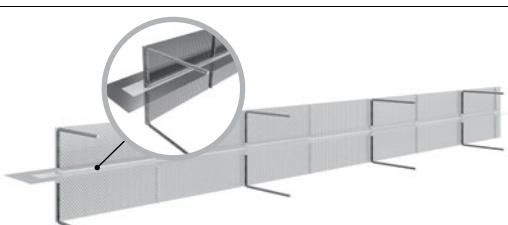
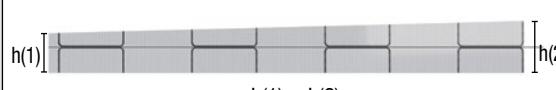
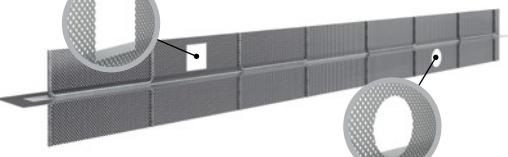
All intermediate dimensions of the rib lath width available.

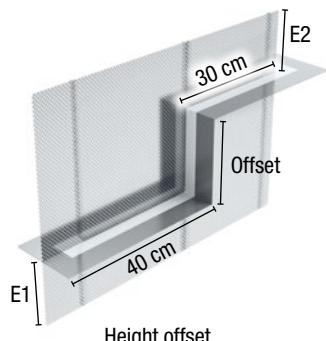
Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

Accessories/special versions

JOINT SHEET METAL ABS

Art. no.	Description	Price per element	Schematic illustration
000354	ABS installation aid, one side (bottom) comprising 4 L brackets	€8.50	
000356	ABS installation aid, both sides (top + bottom) comprising 4 L brackets, arranged opposed to each other on each side	€17.00	
	Tapered, one side Rib lath wing with diagonal cut on one side	available on request	 $h(1) < h(2)$
	Tapered, both sides Rib lath wing with diagonal cut on both sides	available on request	 $h(1) < h(2)$
	Offset Rib lath wing with different heights	available on request	 $h(2) > h(1)$ $h(1) \neq h(2)$
	Special lengths Length of the element greater or less than stock length of 2.5 m	available on request	 Length >/< 2.5 m
	Recess (round and rectangular) Round or rectangular recesses in the rib lath wing produced in the factory	available on request	



ABS spacer

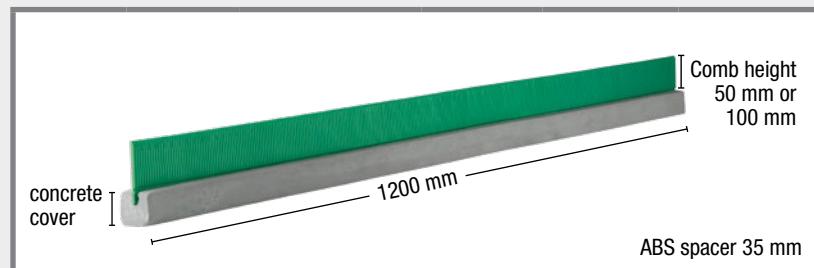
ABS spacer, "formwork comb" type

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219

Fibre cement square spacer with integrated formwork comb

- Compliant with German WU directive for Water-Impermeable Concrete Buildings



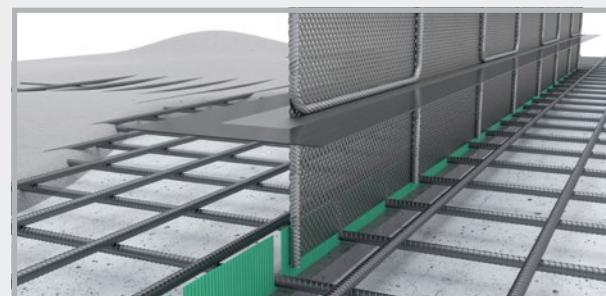
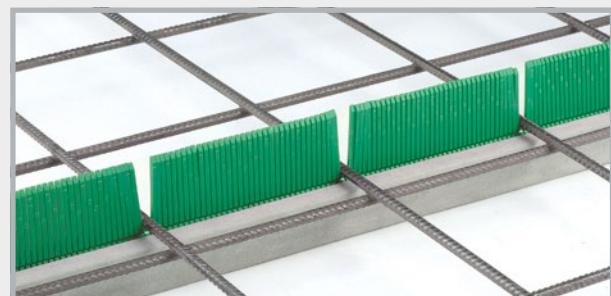
Description	Length	PU	Secondary packaging	Art. no.	Weight per pc.	Price per m
ABS spacer 35/50 mm "Formwork comb" type, concrete cover 35 mm, Comb height 50 mm	1.2 m	1 pc.	1 pallet = 276 pcs.	070645	2.90 kg	€19.00
ABS spacer 35/100 mm "Formwork comb" type, concrete cover 35 mm, Comb height 100 mm	1.2 m	1 pc.	1 pallet = 184 pcs.	070643	3.20 kg	€20.00
ABS spacer 40/50 mm "Formwork comb" type, Concrete cover 40 mm, Comb height 50 mm	1.2 m	1 pc.	1 pallet = 228 pcs.	070647	3.80 kg	€20.00
ABS spacer 40/100 mm "Formwork comb" type, Concrete cover 40 mm, Comb height 100 mm	1.2 m	1 pc.	1 pallet = 152 pcs.	070646	4.10 kg	€21.00
ABS spacer 50/50 mm "Formwork comb" type, Concrete cover 50 mm, Comb height 50 mm	1.2 m	1 pc.	1 pallet = 140 pcs.	070649	6.10 kg	€22.00
ABS spacer 50/100 mm "Formwork comb" type, Concrete cover 50 mm, Comb height 100 mm	1.2 m	1 pc.	1 pallet = 84 pcs.	070648	6.40 kg	€23.00

By positioning the ABS spacer type formwork comb below the longitudinal direction of stopend panels, the comb minimises the discharge of concrete in the area of the lower reinforcement layer. The teeth of the comb are only displaced in the support area of the reinforcement; the open area between and below the lower layer of reinforcement is therefore reduced.

The comb height must be selected in accordance with the height of the reinforcement structure:

Reinforcement structure up to 40 mm = comb height 50 mm

Reinforcement structure up to 90 mm = comb height 100 mm



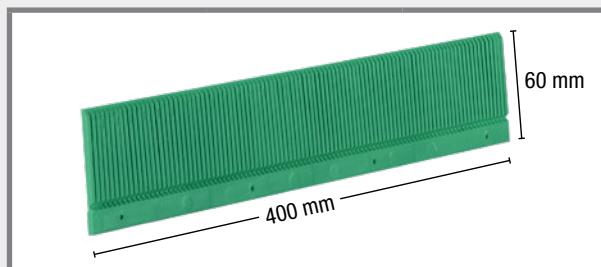
The formwork comb is arranged facing the first concreting section.

Formwork comb – SOLO

Formwork aid for the upper reinforcement layer

Art.Gr.
219

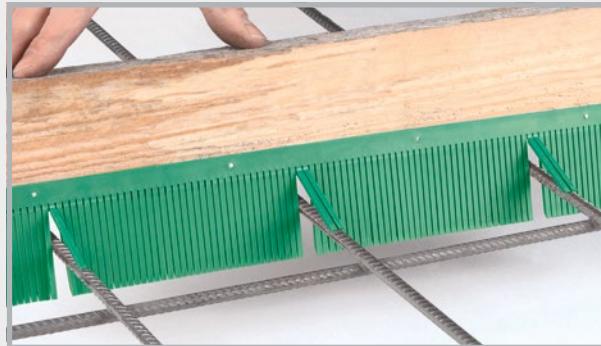
By positioning the formwork comb above the longitudinal direction of stopend panels, the comb minimises the discharge of concrete in the area of the upper reinforcement layer. The teeth of the formwork comb are only displaced in the support area of the reinforcement; the open area between the layer of reinforcement is therefore reduced.



Description	Length	PU	Art. no.	Weight/pc.	Price/pc.
Formwork comb – SOLO, 50 mm	0.4 m	1 pc.	070644	0.06 kg	€2.00
Formwork comb – SOLO, 100 mm	0.4 m	1 pc.	070642	0.12 kg	€2.50



With nail holes, for simple installation



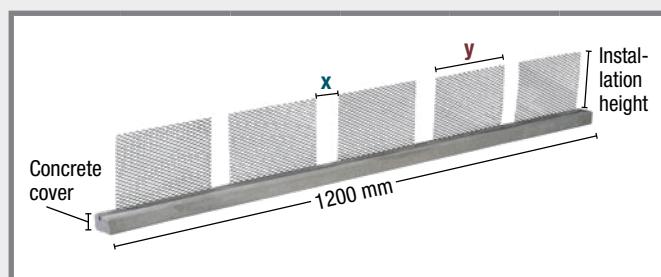
Position, align and anchor back the square timber

ABS spacer, rib lath type “Fix”

Fibre cement square spacer with integrated rib lath

Art.Gr.
219

By positioning the ABS spacer below the longitudinal direction of stopend panels, the rib lath minimises the discharge of concrete in the area of the lower reinforcement layer. The variant “Fix” is pre-fabricated to meet your specifications.



Description	Length	PU	Installation height 120			Installation height 150		
			Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS spacer 35 mm type “Fix” Installation height 120/150-x-y	1.2 m	1 pc.	070630	3.20 kg	€25.00	070636	3.40 kg	€25.00
ABS spacer 40 mm, type “Fix” Installation height 120/150-x-y	1.2 m	1 pc.	070632	3.60 kg	€26.00	070638	3.80 kg	€26.00
ABS spacer 50 mm, type “Fix” Installation height 120/150-x-y	1.2 m	1 pc.	070634	6.50 kg	€28.00	070640	6.70 kg	€28.00

To adapt the ABS spacers perfectly to your installation situation, we need, in addition to the installation height, the reinforcement width **x** and the formwork width **y**.

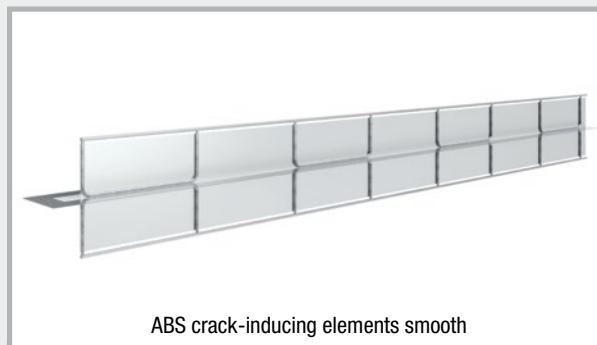
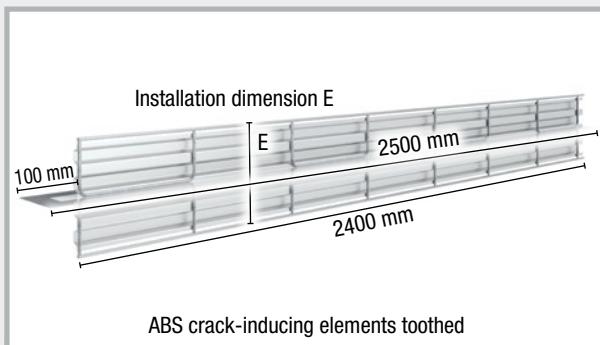
ABS crack-inducing elements

ABS crack-inducing elements toothed

with bracing and mounting rim,
maximum joint opening 1.0 mm

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Description	E = Rib lath width	Length	Art. no.	Weight/pc.	Price/m
ABS crack-inducing elements 160 toothed	Up to 160 mm	2.5 m	070362S	8.25 kg	€55.00
ABS crack-inducing elements 200 toothed	170 – 200 mm	2.5 m	070364S	8.95 kg	€56.00
ABS crack-inducing elements 250 toothed	210 – 250 mm	2.5 m	070366S	9.80 kg	€57.00
ABS crack-inducing elements 300 toothed	260 – 300 mm	2.5 m	070368S	10.70 kg	€58.00
ABS crack-inducing elements 400 toothed	310 – 400 mm	2.5 m	070370S	12.45 kg	€62.00
ABS crack-inducing elements 500 toothed	410 – 500 mm	2.5 m	070372S	14.90 kg	€71.00
ABS crack-inducing elements 600 toothed	510 – 600 mm	2.5 m	070374S	16.25 kg	€76.00
ABS crack-inducing elements 700 toothed	610 – 700 mm	2.5 m	070376S	17.65 kg	€81.00
ABS crack-inducing elements 800 toothed	710 – 800 mm	2.5 m	070378S	20.05 kg	€86.00
ABS crack-inducing elements 900 toothed	810 – 900 mm	2.5 m	070380S	21.45 kg	€91.00
ABS crack-inducing elements 1000 toothed	910 – 1000 mm	2.5 m	070382S	22.80 kg	€96.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

ABS crack-inducing elements smooth

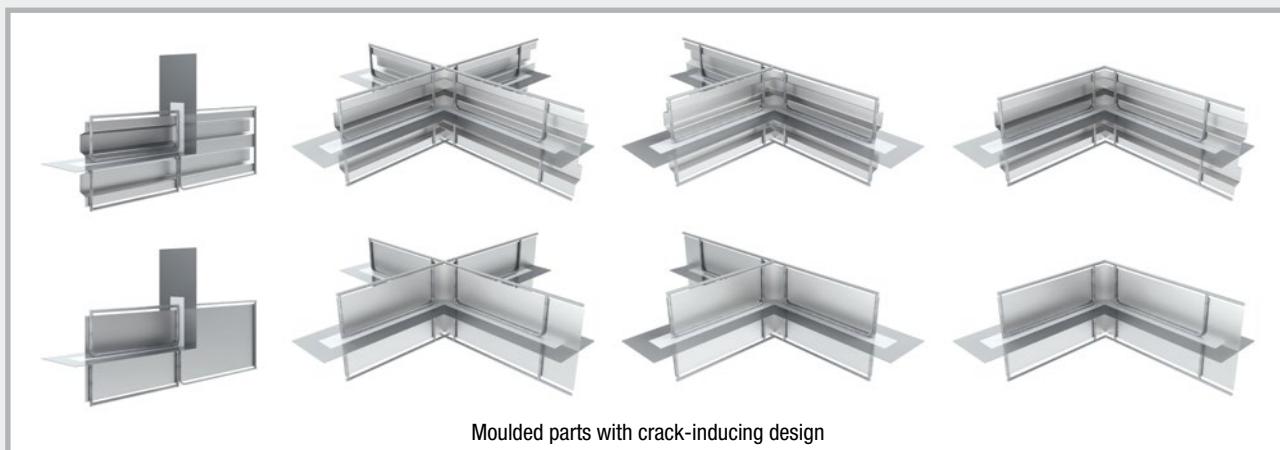
with bracing and mounting rim,
maximum joint opening 1.0 mm

Technical details page 92

Art.Gr.
233

Description	E = Rib lath width	Length	Art. no.	Weight/pc.	Price/m
ABS crack-inducing elements 130 smooth	Up to 130 mm	2.5 m	070281S	7.45 kg	€50.00
ABS crack-inducing elements 160 smooth	140 – 160 mm	2.5 m	070282S	7.95 kg	€51.00
ABS crack-inducing elements 200 smooth	170 – 200 mm	2.5 m	070284S	8.55 kg	€52.00
ABS crack-inducing elements 250 smooth	210 – 250 mm	2.5 m	070287S	9.30 kg	€53.00
ABS crack-inducing elements 300 smooth	260 – 300 mm	2.5 m	070289S	10.05 kg	€54.00
ABS crack-inducing elements 400 smooth	310 – 400 mm	2.5 m	070291S	11.60 kg	€58.00
ABS crack-inducing elements 500 smooth	410 – 500 mm	2.5 m	070293S	13.85 kg	€63.00
ABS crack-inducing elements 600 smooth	510 – 600 mm	2.5 m	070295S	15.00 kg	€68.00
ABS crack-inducing elements 700 smooth	610 – 700 mm	2.5 m	070297S	16.15 kg	€73.00
ABS crack-inducing elements 800 smooth	710 – 800 mm	2.5 m	070299S	18.35 kg	€78.00
ABS crack-inducing elements 900 smooth	810 – 900 mm	2.5 m	070301S	19.50 kg	€83.00
ABS crack-inducing elements 1000 smooth	910 – 1000 mm	2.5 m	070303S	20.65 kg	€88.00

All intermediate dimensions of the rib lath width available.
Installation dimension E > 1000 mm available on request



All accessories, e.g. deflection profile, cross profile, T profile and corner profile, can be produced with a crack-inducing design as toothed and smooth variant.

Price available on request

Stopend panels UNCOATED JOINT SHEET METAL

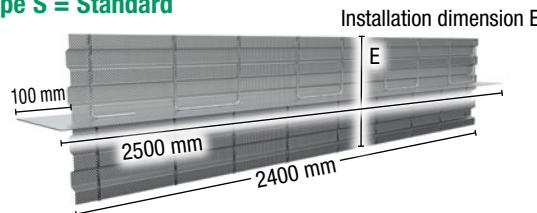
Stopend panels UNCOATED JOINT SHEET METAL toothed

Uncoated joint sheet metal as recommended by the WU Guideline

Joint category: toothed, according to DIN EN 1992-1-1 NA (EC2)

Art.Gr.
218

Type S = Standard



Stopend panels UNCOATED JOINT SHEET METAL toothed – Type S

Type V = Reinforced version



Stopend panels UNCOATED JOINT SHEET METAL toothed – Type V

Description	Installation dimension E = Rib lath width		Joint sheet metal 1.5 x 250 mm		Joint sheet metal 1.5 x 300 mm		Joint sheet metal 2.0 x 250 mm		Joint sheet metal 2.0 x 300 mm	
			Type S	Type V	Type S	Type V	Type S	Type V	Type S	Type V
FB ABS 160 toothed	up to 160 mm	Art. no. Weight Price/m	071100 9.75 kg €44.00	071100V 12.90 kg €69.00	071122 11.25 kg €46.00	071122V 14.35 kg €71.00	071144 12.10 kg €47.00	071144V 15.20 kg €73.00	071166 14.05 kg €49.00	071166V 17.20 kg €75.00
FB ABS 200 toothed	170-200 mm	Art. no. Weight Price/m	071102 10.15 kg €45.00	071102V 13.60 kg €70.00	071124 11.65 kg €47.00	071124V 15.10 kg €72.00	071146 12.50 kg €48.00	071146V 15.95 kg €74.00	071168 14.45 kg €50.00	071168V 17.90 kg €76.00
FB ABS 250 toothed	210-250 mm	Art. no. Weight Price/m	071104 10.60 kg €46.00	071104V 14.45 kg €71.00	071126 12.10 kg €48.00	071126V 16.00 kg €73.00	071148 12.95 kg €49.00	071148V 16.80 kg €75.00	071170 14.90 kg €51.00	071170V 18.75 kg €77.00
FB ABS 300 toothed	260-300 mm	Art. no. Weight Price/m	071106 11.10 kg €47.00	071106V 15.40 kg €72.00	071128 12.60 kg €49.00	071128V 16.90 kg €74.00	071150 13.45 kg €50.00	071150V 17.75 kg €76.00	071172 15.40 kg €52.00	071172V 19.70 kg €78.00
FB ABS 400 toothed	310-400 mm	Art. no. Weight Price/m	071108 12.15 kg €49.00	071108V 17.25 kg €75.00	071130 13.65 kg €51.00	071130V 18.75 kg €77.00	071152 14.50 kg €52.00	071152V 19.60 kg €79.00	071174 16.45 kg €54.00	071174V 21.55 kg €81.00
FB ABS 500 toothed	410-500 mm	Art. no. Weight Price/m	071110 13.85 kg €55.00	071110V 19.80 kg €82.00	071132 15.30 kg €57.00	071132V 21.25 kg €84.00	071154 16.20 kg €60.00	071154V 22.10 kg €88.00	071176 18.15 kg €62.00	071176V 24.10 kg €90.00
FB ABS 600 toothed	510-600 mm	Art. no. Weight Price/m	071112 14.45 kg €57.00	071112V 21.25 kg €85.00	071134 15.95 kg €59.00	071134V 22.70 kg €87.00	071156 16.80 kg €62.00	071156V 23.55 kg €92.00	071178 18.75 kg €64.00	071178V 25.55 kg €94.00
FB ABS 700 toothed	610-700 mm	Art. no. Weight Price/m	071114 15.10 kg €59.00	071114V 22.70 kg €88.00	071136 16.55 kg €61.00	071136V 24.15 kg €90.00	071158 17.45 kg €64.00	071158V 25.10 kg €95.00	071180 19.40 kg €66.00	071180V 27.00 kg €97.00
FB ABS 800 toothed	710-800 mm	Art. no. Weight Price/m	071116 16.75 kg €61.00	071116V 25.20 kg €91.00	071138 18.25 kg €63.00	071138V 26.65 kg €93.00	071160 19.10 kg €66.00	071160V 27.55 kg €98.00	071182 21.05 kg €68.00	071182V 29.50 kg €100.00
FB ABS 900 toothed	810-900 mm	Art. no. Weight Price/m	071118 17.40 kg €63.00	071118V 26.65 kg €94.00	071140 18.85 kg €65.00	071140V 28.15 kg €96.00	071162 19.75 kg €68.00	071162V 29.00 kg €101.00	071184 21.70 kg €70.00	071184V 30.95 kg €103.00
FB ABS 1000 toothed	910-1000 mm	Art. no. Weight Price/m	071120 18.00 kg €65.00	071120V 28.10 kg €97.00	071142 19.50 kg €67.00	071142V 29.60 kg €99.00	071164 20.35 kg €70.00	071164V 30.45 kg €104.00	071186 22.30 kg €72.00	071186V 32.40 kg €106.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

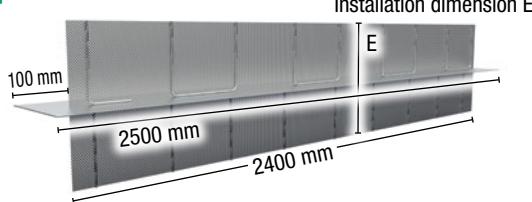
Stopend panels UNCOATED JOINT SHEET METAL rough

Uncoated joint sheet metal as recommended by the WU Guideline

Joint category: rough, according to DIN EN 1992-1-1 NA (EC2)

Art.Gr.
218

Type S = Standard



Stopend panels UNCOATED JOINT SHEET METAL rough – Type S

Type V = Reinforced version



Stopend panels UNCOATED JOINT SHEET METAL rough – Type V

Description	Installation dimension E = Rib lath width		Joint sheet metal 1,5 x 250 mm		Joint sheet metal 1,5 x 300 mm		Joint sheet metal 2,0 x 250 mm		Joint sheet metal 2,0 x 300 mm	
			Type S	Type V						
FB ABS 130 rough	up to 130 mm	Art. no. Weight Price/m	071000 9.25 kg €39.00	071000V 12.15 kg €64.00	071026 10.75 kg €41.00	071026V 13.60 kg €66.00	071050 11.60 kg €42.00	071050V 14.45 kg €68.00	071074 13.55 kg €44.00	071074V 16.45 kg €70.00
FB ABS 160 rough	140-160 mm	Art. no. Weight Price/m	071002 9.55 kg €40.00	071002V 12.70 kg €65.00	071028 11.05 kg €42.00	071028V 14.15 kg €67.00	071052 11.90 kg €43.00	071052V 15.00 kg €69.00	071076 13.85 kg €45.00	071076V 17.00 kg €71.00
FB ABS 200 rough	170-200 mm	Art. no. Weight Price/m	071004 9.90 kg €41.00	071004V 13.35 kg €66.00	071030 11.40 kg €43.00	071030V 14.85 kg €68.00	071054 12.25 kg €44.00	071054V 15.70 kg €70.00	071078 14.20 kg €46.00	071078V 17.65 kg €72.00
FB ABS 250 rough	210-250 mm	Art. no. Weight Price/m	071006 10.30 kg €42.00	071006V 14.15 kg €67.00	071032 11.75 kg €44.00	071032V 15.65 kg €69.00	071056 12.65 kg €45.00	071056V 16.50 kg €71.00	071080 14.60 kg €47.00	071080V 18.45 kg €73.00
FB ABS 300 rough	260-300 mm	Art. no. Weight Price/m	071008 10.75 kg €43.00	071008V 15.05 kg €68.00	071034 12.20 kg €45.00	071034V 16.50 kg €70.00	071058 13.10 kg €46.00	071058V 17.35 kg €72.00	071082 15.05 kg €48.00	071082V 19.35 kg €74.00
FB ABS 400 rough	310-400 mm	Art. no. Weight Price/m	071010 11.65 kg €45.00	071010V 16.75 kg €71.00	071036 13.15 kg €47.00	071036V 18.25 kg €73.00	071060 14.00 kg €48.00	071060V 19.10 kg €75.00	071084 15.95 kg €50.00	071084V 21.10 kg €77.00
FB ABS 500 rough	410-500 mm	Art. no. Weight Price/m	071012 13.20 kg €47.00	071012V 19.15 kg €74.00	071038 14.70 kg €49.00	071038V 20.65 kg €76.00	071062 15.60 kg €50.00	071062V 21.50 kg €78.00	071086 17.50 kg €52.00	071086V 23.45 kg €80.00
FB ABS 600 rough	510-600 mm	Art. no. Weight Price/m	071014 13.70 kg €49.00	071014V 20.50 kg €77.00	071040 15.20 kg €51.00	071040V 21.95 kg €79.00	071064 16.05 kg €52.00	071064V 22.80 kg €82.00	071088 18.00 kg €54.00	071088V 24.80 kg €84.00
FB ABS 700 rough	610-700 mm	Art. no. Weight Price/m	071016 14.20 kg €51.00	071016V 21.80 kg €80.00	071042 15.70 kg €53.00	071042V 23.30 kg €82.00	071066 16.55 kg €54.00	071066V 24.15 kg €85.00	071090 18.50 kg €56.00	071090V 26.10 kg €87.00
FB ABS 800 rough	710-800 mm	Art. no. Weight Price/m	071018 15.75 kg €53.00	071018V 24.20 kg €83.00	071044 17.25 kg €55.00	071044V 25.65 kg €85.00	071068 18.10 kg €56.00	071068V 26.55 kg €88.00	071092 20.05 kg €58.00	071092V 28.50 kg €90.00
FB ABS 900 rough	810-900 mm	Art. no. Weight Price/m	071020 16.25 kg €55.00	071020V 25.55 kg €86.00	071046 17.75 kg €57.00	071046V 27.00 kg €88.00	071070 18.60 kg €58.00	071070V 27.85 kg €91.00	071094 20.55 kg €60.00	071094V 29.85 kg €93.00
FB ABS 1000 rough	910-1000 mm	Art. no. Weight Price/m	071022 16.75 kg €57.00	071022V 26.85 kg €89.00	071048 18.25 kg €59.00	071048V 28.35 kg €91.00	071072 19.10 kg €60.00	071072V 29.20 kg €94.00	071096 21.05 kg €62.00	071096V 31.15 kg €96.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

Deflection profile, toothed and rough

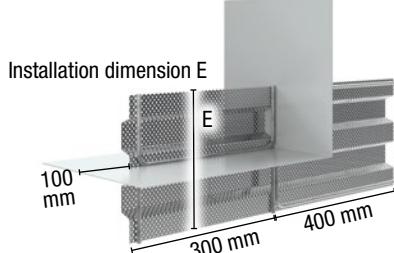
for changing the direction of the sealing level from horizontal to vertical

Uncoated joint sheet metal as recommended by the WU Guideline

Joint category: toothed and rough, according to DIN EN 1992-1-1 NA (EC2)

Art.Gr.
218

Type S = Standard



Stopend panels UNCOATED JOINT SHEET METAL deflection profile, toothed

Type V = Reinforced version



Stopend panels UNCOATED JOINT SHEET METAL deflection profile, rough

Description	Installation dimension E = Rib lath width		toothed 2.0 x 250 mm		toothed 2.0 x 300 mm		rough 2.0 x 250 mm		rough 2.0 x 300 mm	
			Type S	Type V						
FB ABS ULP 130	up to 130 mm	Art. no. Weight Price/m	—	—	—	—	071260 4.00 kg €104.00	071260V 4.50 kg €148.00	071290 4.45 kg €106.00	071290V 4.99 kg €151.00
FB ABS ULP 160	140 – 160 mm	Art. no. Weight Price/m	071320 4.36 kg €107.00	071320V 5.03 kg €152.00	071350 4.87 kg €109.00	071350V 5.53 kg €154.00	071262 4.16 kg €105.00	071262V 4.83 kg €150.00	071292 4.67 kg €107.00	071292V 5.33 kg €152.00
FB ABS ULP 200	170 – 200 mm	Art. no. Weight Price/m	071322 4.69 kg €108.00	071322V 5.52 kg €154.00	071352 5.21 kg €110.00	071352V 6.04 kg €156.00	071264 4.44 kg €106.00	071264V 5.27 kg €152.00	071294 4.96 kg €108.00	071294V 5.79 kg €154.00
FB ABS ULP 250	210 – 250 mm	Art. no. Weight Price/m	071324 5.10 kg €109.00	071324V 6.14 kg €156.00	071354 5.64 kg €111.00	071354V 6.68 kg €158.00	071266 4.79 kg €107.00	071266V 5.83 kg €154.00	071296 5.33 kg €109.00	071296V 6.36 kg €156.00
FB ABS ULP 300	260 – 300 mm	Art. no. Weight Price/m	071326 5.96 kg €110.00	071326V 7.21 kg €158.00	071356 6.52 kg €112.00	071356V 7.77 kg €160.00	071268 5.59 kg €108.00	071268V 6.83 kg €156.00	071298 6.15 kg €110.00	071298V 7.39 kg €158.00
FB ABS ULP 400	310 – 400 mm	Art. no. Weight Price/m	071328 6.92 kg €112.00	071328V 8.58 kg €162.00	071358 7.52 kg €114.00	071358V 9.18 kg €164.00	071270 6.42 kg €110.00	071270V 8.08 kg €160.00	071300 7.02 kg €112.00	071300V 8.68 kg €162.00
FB ABS ULP 500	410 – 500 mm	Art. no. Weight Price/m	071330 8.09 kg €114.00	071330V 10.17 kg €166.00	071360 8.73 kg €116.00	071360V 10.80 kg €168.00	071272 7.47 kg €112.00	071272V 9.54 kg €164.00	071302 8.10 kg €114.00	071302V 10.18 kg €166.00
FB ABS ULP 600	510 – 600 mm	Art. no. Weight Price/m	071332 8.91 kg €116.00	071332V 11.40 kg €170.00	071362 9.58 kg €118.00	071362V 12.07 kg €172.00	071274 8.16 kg €114.00	071274V 10.65 kg €168.00	071304 8.83 kg €116.00	071304V 11.32 kg €170.00
FB ABS ULP 700	610 – 700 mm	Art. no. Weight Price/m	071334 9.73 kg €118.00	071334V 12.63 kg €174.00	071364 10.44 kg €120.00	071364V 13.35 kg €176.00	071276 8.85 kg €116.00	071276V 11.76 kg €172.00	071306 9.57 kg €118.00	071306V 12.47 kg €174.00
FB ABS ULP 800	710 – 800 mm	Art. no. Weight Price/m	071336 10.90 kg €120.00	071336V 14.22 kg €178.00	071366 11.65 kg €122.00	071366V 14.97 kg €180.00	071278 9.90 kg €118.00	071278V 13.22 kg €176.00	071308 10.65 kg €120.00	071308V 13.97 kg €178.00
FB ABS ULP 900	810 – 900 mm	Art. no. Weight Price/m	071338 11.72 kg €122.00	071338V 15.45 kg €182.00	071368 12.51 kg €124.00	071368V 16.24 kg €184.00	071280 10.59 kg €120.00	071280V 14.33 kg €180.00	071310 11.38 kg €122.00	071310V 15.12 kg €182.00
FB ABS ULP 1000	910 – 1000 mm	Art. no. Weight Price/m	071340 12.53 kg €124.00	071340V 16.68 kg €186.00	071370 13.37 kg €126.00	071370V 17.52 kg €188.00	071282 11.28 kg €122.00	171282V 15.43 kg €184.00	071312 12.12 kg €124.00	071312V 16.27 kg €186.00

The 2.0 x 250 mm or 2.0 x 300 mm version can also be used for all joint sheet metals ABS 1.5 x 250 mm or 1.5 x 300 mm.

Corner profile, toothed and rough

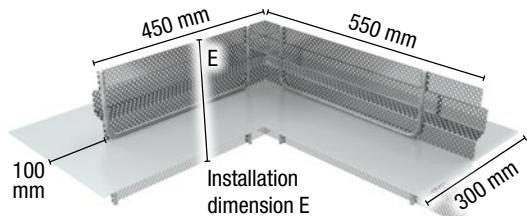
for changing the direction of the sealing level in the floor slab

Uncoated joint sheet metal as recommended by the WU Guideline

Joint category: toothed and rough, according to DIN EN 1992-1-1 NA (EC2)

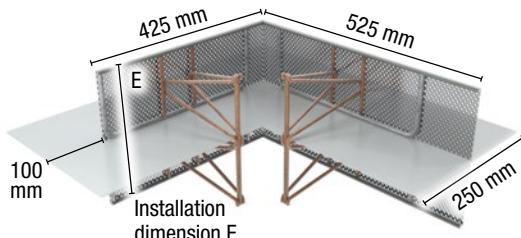
Art.Gr.
218

Type S = Standard



Stopend panels UNCOATED JOINT SHEET METAL corner profile, toothed

Type V = Reinforced version



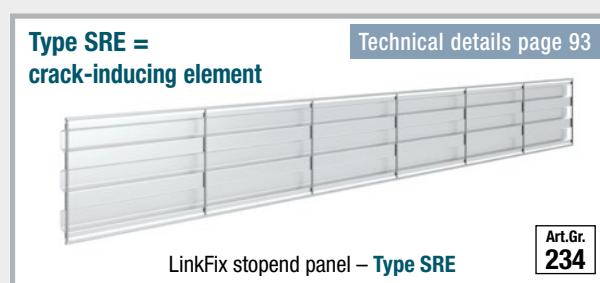
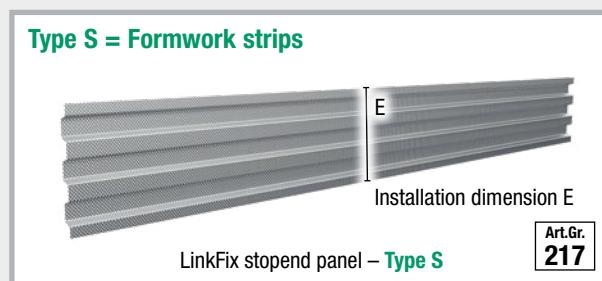
Stopend panels UNCOATED JOINT SHEET METAL corner profile, rough

Description	Installation dimension E = Rib lath width		toothed 2.0 x 250 mm		toothed 2.0 x 300 mm		rough 2.0 x 250 mm		rough 2.0 x 300 mm	
			Type S	Type V	Type S	Type V	Type S	Type V	Type S	Type V
FB ABS EP 130	up to 130 mm	Art. no. Weight Price/m	—	—	—	—	071380 5.95 kg €115.00	071380V 6.49 kg €159.00	071410 6.70 kg €117.00	071410V 7.24 kg €161.00
FB ABS EP 160	140 – 160 mm	Art. no. Weight Price/m	071440 6.30 kg €118.00	071440V 6.96 kg €163.00	071470 7.05 kg €120.00	071470V 7.72 kg €165.00	071382 6.10 kg €116.00	071382V 6.76 kg €161.00	071412 6.85 kg €118.00	071412V 7.52 kg €163.00
FB ABS EP 200	170 – 200 mm	Art. no. Weight Price/m	071442 6.55 kg €119.00	071442V 7.38 kg €165.00	071472 7.30 kg €121.00	071472V 8.13 kg €167.00	071384 6.30 kg €117.00	071384V 7.13 kg €163.00	071414 7.05 kg €119.00	071414V 7.88 kg €165.00
FB ABS EP 250	210 – 250 mm	Art. no. Weight Price/m	071444 6.86 kg €120.00	071444V 7.90 kg €167.00	071474 7.61 kg €122.00	071474V 8.65 kg €169.00	071386 6.55 kg €118.00	071386V 7.59 kg €165.00	071416 7.30 kg €120.00	071416V 8.34 kg €167.00
FB ABS EP 300	260 – 300 mm	Art. no. Weight Price/m	071446 7.77 kg €121.00	071446V 9.01 kg €169.00	071476 8.52 kg €123.00	071476V 9.77 kg €171.00	071388 7.39 kg €119.00	071388V 8.64 kg €167.00	071418 8.15 kg €121.00	071418V 9.39 kg €169.00
FB ABS EP 400	310 – 400 mm	Art. no. Weight Price/m	071448 8.62 kg €123.00	071448V 10.28 kg €173.00	071478 9.38 kg €125.00	071478V 11.04 kg €175.00	071390 8.12 kg €121.00	071390V 9.78 kg €171.00	071420 8.88 kg €123.00	071420V 10.54 kg €173.00
FB ABS EP 500	410 – 500 mm	Art. no. Weight Price/m	071450 9.83 kg €125.00	071450V 11.91 kg €177.00	071480 10.59 kg €127.00	071480V 12.66 kg €179.00	071392 9.21 kg €123.00	071392V 11.28 kg €175.00	071422 9.96 kg €125.00	071422V 12.04 kg €177.00
FB ABS EP 600	510 – 600 mm	Art. no. Weight Price/m	071452 10.46 kg €127.00	071452V 12.95 kg €181.00	071482 11.21 kg €129.00	071482V 13.70 kg €183.00	071394 9.71 kg €125.00	071394V 12.20 kg €179.00	071424 10.46 kg €127.00	071424V 12.95 kg €181.00
FB ABS EP 700	610 – 700 mm	Art. no. Weight Price/m	071454 11.08 kg €129.00	071454V 13.99 kg €185.00	071484 11.39 kg €131.00	071484V 14.74 kg €187.00€	071396 10.21 kg €127.00	071396V 13.11 kg €183.00	071426 10.96 kg €129.00	071426V 13.87 kg €185.00
FB ABS EP 800	710 – 800 mm	Art. no. Weight Price/m	071456 12.29 kg €131.00	071456V 15.61 kg €189.00	071486 13.05 kg €133.00	071486V 16.37 kg €191.00	071398 11.29 kg €129.00	071398V 14.61 kg €187.00	071428 12.05 kg €131.00	071428V 15.37 kg €189.00
FB ABS EP 900	810 – 900 mm	Art. no. Weight Price/m	071458 12.92 kg €133.00	071458V 16.65 kg €193.00	071488 13.67 kg €135.00	071488V 13.67 kg €195.00	071400 11.79 kg €131.00	071400V 15.53 kg €191.00	071430 12.55 kg €133.00	071430V 16.28 kg €193.00
FB ABS EP 1000	910 – 1000 mm	Art. no. Weight Price/m	071460 13.54 kg €135.00	071460V 17.69 kg €197.00	071490 14.30 kg €137.00	071490V 18.45 kg €199.00	071402 12.29 kg €133.00	071402V 16.44 kg €195.00	071432 13.05 kg €135.00€	071432V 17.80 kg €197.00

The 2.0 x 250 mm or 2.0 x 300 mm version can also be used for all joint sheet metals ABS 1.5 x 250 mm or 1.5 x 300 mm.

LinkFix stopend panels

Lost formwork/crack-inducing profiles for construction joints in the toothed joint category according to DIN EN 1992-1-1 NA (EC2), prefabricated ready for installation



Element length: 2.4 m

E dimension > 800 mm available on request
All intermediate dimensions available

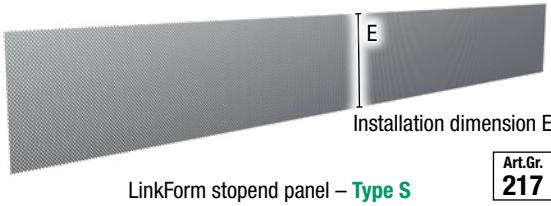
Description	Installation dimension	Type S = Formwork strips			Type V = braced		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
LinkFix 130 toothed	Up to 130 mm	070556	0.81 kg	€11.00	070576	2.80 kg	€24.00
LinkFix 160 toothed	140 – 160 mm	070558	1.00 kg	€11.50	070578	3.05 kg	€25.00
LinkFix 200 toothed	170 – 200 mm	070560	1.25 kg	€12.00	070580	3.35 kg	€26.00
LinkFix 250 toothed	210 – 250 mm	070562	1.60 kg	€12.50	070582	3.75 kg	€27.00
LinkFix 300 toothed	260 – 300 mm	070564	1.90 kg	€13.00	070584	4.15 kg	€28.00
LinkFix 400 toothed	310 – 400 mm	070566	2.50 kg	€14.00	070586	4.90 kg	€29.00
LinkFix 500 toothed	410 – 500 mm	070568	3.15 kg	€15.00	070588	5.70 kg	€31.00
LinkFix 600 toothed	510 – 600 mm	070570	3.75 kg	€16.00	070590	6.50 kg	€33.00
LinkFix 700 toothed	610 – 700 mm	070572	4.40 kg	€17.00	070592	7.25 kg	€35.00
LinkFix 800 toothed	710 – 800 mm	020050 LinkFix sheets (page 37)			070594	8.05 kg	€37.00

Description	Installation dimension	Type VV = braced + reinforced			Type SRE = crack-inducing element		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
LinkFix 130 toothed	Up to 130 mm	070576V	3.70 kg	€40.00	070576S	3.50 kg	€27.00
LinkFix 160 toothed	140 – 160 mm	070578V	4.15 kg	€41.00	070578S	3.90 kg	€28.00
LinkFix 200 toothed	170 – 200 mm	070580V	4.75 kg	€42.00	070580S	4.40 kg	€29.00
LinkFix 250 toothed	210 – 250 mm	070582V	5.50 kg	€44.00	070582S	5.05 kg	€30.00
LinkFix 300 toothed	260 – 300 mm	070584V	6.25 kg	€45.00	070584S	5.70 kg	€31.00
LinkFix 400 toothed	310 – 400 mm	070586V	7.75 kg	€48.00	070586S	6.70 kg	€33.00
LinkFix 500 toothed	410 – 500 mm	070588V	9.20 kg	€52.00	070588S	8.30 kg	€39.00
LinkFix 600 toothed	510 – 600 mm	070590V	10.70 kg	€55.00	070590S	9.60 kg	€41.00
LinkFix 700 toothed	610 – 700 mm	070592V	12.20 kg	€60.00	070592S	10.90 kg	€43.00
LinkFix 800 toothed	710 – 800 mm	070594V	13.70 kg	€65.00	070594S	12.20 kg	€45.00

LinkForm stopend panels

Lost formwork/crack-inducing profiles for construction joints in the rough joint category according to DIN EN 1992-1-1 NA (EC2), prefabricated ready for installation

Type S = Formwork strips



Art.Gr.
217

Type V = braced



Art.Gr.
217

Type VV = braced + reinforced



Art.Gr.
217

Type SRE =
crack-inducing element

Technical details page 93



Art.Gr.
234

Element length: 2.4 m

E dimension > 800 mm available on request
All intermediate dimensions available

Description	Installation dimension	Type S = Formwork strips			Type V = braced		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
LinkForm 130 rough	Up to 130 mm	070500	0.65 kg	€8.00	070530	2.65 kg	€21.00
LinkForm 160 rough	140 – 160 mm	070502	0.80 kg	€8.50	070532	2.85 kg	€22.00
LinkForm 200 rough	170 – 200 mm	070504	1.00 kg	€9.00	070534	3.10 kg	€23.00
LinkForm 250 rough	210 – 250 mm	070506	1.25 kg	€9.50	070536	3.45 kg	€24.00
LinkForm 300 rough	260 – 300 mm	070508	1.50 kg	€10.00	070538	3.75 kg	€25.00
LinkForm 400 rough	310 – 400 mm	070512	2.00 kg	€11.00	070540	4.40 kg	€26.00
LinkForm 500 rough	410 – 500 mm	070514	2.50 kg	€12.00	070544	5.05 kg	€28.00
LinkForm 600 rough	510 – 600 mm	070516	3.00 kg	€13.00	070546	5.75 kg	€30.00
LinkForm 700 rough	610 – 700 mm	070518	3.50 kg	€14.00	070548	6.40 kg	€32.00
LinkForm 800 rough	710 – 800 mm	070519	4.00 kg	€15.00	070550	7.05 kg	€34.00

Description	Installation dimension	Type VV = braced + reinforced			Type SRE = crack-inducing element		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
LinkForm 130 rough	Up to 130 mm	070530V	3.55 kg	€37.00	070530S	3.30 kg	€23.00
LinkForm 160 rough	140 – 160 mm	070532V	3.95 kg	€38.00	070532S	3.65 kg	€24.00
LinkForm 200 rough	170 – 200 mm	070534V	4.50 kg	€39.00	070534S	4.10 kg	€25.00
LinkForm 250 rough	210 – 250 mm	070536V	5.20 kg	€40.00	070536S	4.70 kg	€26.00
LinkForm 300 rough	260 – 300 mm	070538V	5.85 kg	€42.00	070538S	5.25 kg	€27.00
LinkForm 400 rough	310 – 400 mm	070540V	7.25 kg	€44.00	070540S	6.40 kg	€29.00
LinkForm 500 rough	410 – 500 mm	070544V	8.60 kg	€47.00	070544S	7.55 kg	€31.00
LinkForm 600 rough	510 – 600 mm	070546V	9.95 kg	€50.00	070546S	8.70 kg	€33.00
LinkForm 700 rough	610 – 700 mm	070548V	11.30 kg	€55.00	070548S	9.85 kg	€35.00
LinkForm 800 rough	710 – 800 mm	070550V	12.70 kg	€60.00	070550S	11.00 kg	€37.00

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

ABS joint sheet metal cage

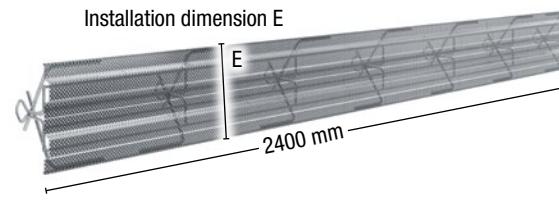
ABS joint sheet metal cage toothed

Stopend panel for retrofitting joint sheet metal

Joint category: toothed, according to DIN EN 1992-1-1 NA (EC2) [Technical details page 94](#)

Art.Gr.
225

Type S = Standard braced



ABS joint sheet metal cage toothed – **Type S**

Type V = Reinforced version



ABS joint sheet metal cage toothed – **Type V**

Element length: 2.4 m

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS joint sheet metal cage 160 toothed	Up to 160 mm	071230	8.20 kg	€40.00	–	–	–
ABS joint sheet metal cage 200 toothed	170 – 200 mm	071232	9.30 kg	€41.00	071232V	10.95 kg	€48.00
ABS joint sheet metal cage 250 toothed	210 – 250 mm	071234	9.60 kg	€42.00	071234V	11.70 kg	€50.00
ABS joint sheet metal cage 300 toothed	260 – 300 mm	071236	10.15 kg	€43.00	071236V	12.65 kg	€52.00
ABS joint sheet metal cage 400 toothed	310 – 400 mm	071238	11.70 kg	€46.00	071238V	15.00 kg	€56.00
ABS joint sheet metal cage 500 toothed	410 – 500 mm	071240	12.30 kg	€48.00	071240V	16.45 kg	€60.00
ABS joint sheet metal cage 600 toothed	510 – 600 mm	071242	12.95 kg	€52.00	071242V	17.90 kg	€66.00
ABS joint sheet metal cage 700 toothed	610 – 700 mm	071244	13.55 kg	€55.00	071244V	19.40 kg	€72.00
ABS joint sheet metal cage 800 toothed	710 – 800 mm	071246	14.20 kg	€59.00	071246V	20.85 kg	€78.00
ABS joint sheet metal cage 900 toothed	810 – 900 mm	071248	14.80 kg	€62.00	071248V	22.30 kg	€84.00
ABS joint sheet metal cage 1000 toothed	910 – 1000 mm	071250	15.45 kg	€70.00	071250V	23.75 kg	€99.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

You can also use all accessories, e.g. deflection profile, cross profile, T profile and corner profile, in conjunction with the ABS joint sheet metal cage. You will find an overview on pages 42 to 46.

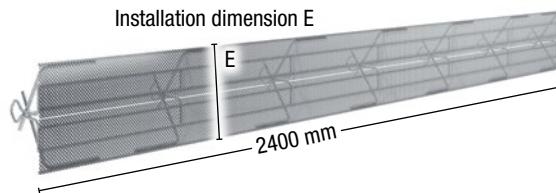
ABS joint sheet metal cage rough

Stopend panel for retrofitting joint sheet metal

Joint category: rough, according to DIN EN 1992-1-1 NA (EC2) Technical details page 94

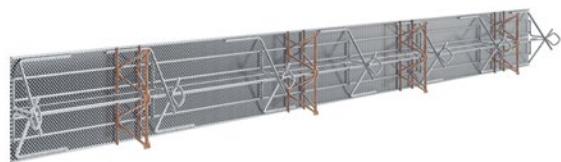
Art.Gr.
225

Type S = Standard braced



ABS joint sheet metal cage rough – **Type S**

Type V = Reinforced version



ABS joint sheet metal cage rough – **Type V**

Element length: 2.4 m

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS joint sheet metal cage 130 rough	Up to 130 mm	071200	6.95 kg	€35.00	–	–	–
ABS joint sheet metal cage 160 rough	140 – 160 mm	071202	7.10 kg	€36.00	–	–	–
ABS joint sheet metal cage 200 rough	170 – 200 mm	071204	7.30 kg	€37.00	071204V	8.95 kg	€44.00
ABS joint sheet metal cage 250 rough	210 – 250 mm	071206	8.45 kg	€38.00	071206V	10.50 kg	€46.00
ABS joint sheet metal cage 300 rough	260 – 300 mm	071208	9.80 kg	€39.00	071208V	12.30 kg	€48.00
ABS joint sheet metal cage 400 rough	310 – 400 mm	071210	11.20 kg	€42.00	071210V	14.55 kg	€52.00
ABS joint sheet metal cage 500 rough	410 – 500 mm	071212	11.70 kg	€44.00	071212V	15.85 kg	€56.00
ABS joint sheet metal cage 600 rough	510 – 600 mm	071214	12.20 kg	€46.00	071214V	17.20 kg	€62.00
ABS joint sheet metal cage 700 rough	610 – 700 mm	071216	12.70 kg	€48.00	071216V	18.50 kg	€68.00
ABS joint sheet metal cage 800 rough	710 – 800 mm	071218	13.20 kg	€50.00	071218V	19.85 kg	€74.00
ABS joint sheet metal cage 900 rough	810 – 900 mm	071220	13.70 kg	€58.00	071220V	21.15 kg	€80.00
ABS joint sheet metal cage 1000 rough	910 – 1000 mm	071222	14.20 kg	€65.00	071222V	22.50 kg	€92.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

You can also use all accessories, e.g. deflection profile, cross profile, T profile and corner profile, in conjunction with the ABS joint sheet metal cage. You will find an overview on pages 42 to 46.

ABS joint tape cage

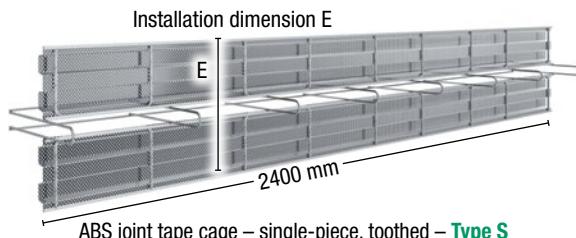
ABS joint tape cage – single-piece, toothed

Stopend panel for retrofitting joint tapes

Joint category: toothed, according to DIN EN 1992-1-1 NA (EC2) Technical details page 95

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Type S = Standard braced



Type V = Reinforced version



Element length: 2.4 m

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS joint tape cage 160 single-piece, toothed	Up to 160 mm	070922	8.00 kg	€42.00	–	–	–
ABS joint tape cage 200 single-piece, toothed	170 – 200 mm	070923	8.40 kg	€43.00	070923V	10.05 kg	€64.00
ABS joint tape cage 250 single-piece, toothed	210 – 250 mm	070924	8.85 kg	€44.00	070924V	10.95 kg	€68.00
ABS joint tape cage 300 single-piece, toothed	260 – 300 mm	070925	9.35 kg	€45.00	070925V	11.85 kg	€72.00
ABS joint tape cage 400 single-piece, toothed	310 – 400 mm	070926	10.40 kg	€47.00	070926V	13.75 kg	€77.00
ABS joint tape cage 500 single-piece, toothed	410 – 500 mm	070927	12.10 kg	€53.00	070927V	16.25 kg	€85.00
ABS joint tape cage 600 single-piece, toothed	510 – 600 mm	070928	12.70 kg	€56.00	070928V	17.70 kg	€89.00
ABS joint tape cage 700 single-piece, toothed	610 – 700 mm	070929	13.35 kg	€59.00	070929V	19.15 kg	€93.00
ABS joint tape cage 800 single-piece, toothed	710 – 800 mm	070930	15.00 kg	€62.00	070930V	21.65 kg	€97.00
ABS joint tape cage 900 single-piece, toothed	810 – 900 mm	070931	15.65 kg	€65.00	070931V	23.10 kg	€101.00
ABS joint tape cage 1000 single-piece, toothed	910 – 1000 mm	070932	16.25 kg	€68.00	070932V	24.55 kg	€104.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

When ordering, please specify the joint tape width (up to 320 mm).

You will find the suitable joint tapes on page 34. A separate order is required.

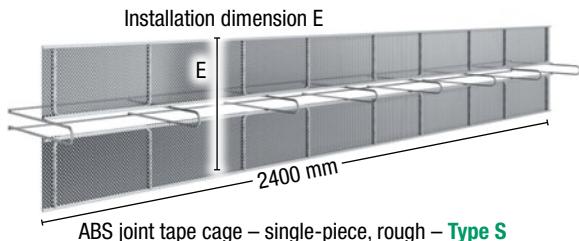
ABS joint tape cage – single-piece, rough

Stopend panel for retrofitting joint tapes

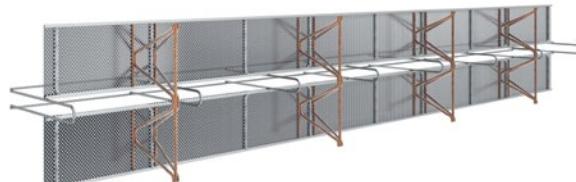
Joint category: rough, according to DIN EN 1992-1-1 NA (EC2) Technical details page 95

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Type S = Standard braced



Type V = Reinforced version



Element length: 2.4 m

All intermediate dimensions of the rib lath width available

Description	Installation dimension E = Rib lath width	Type S = Standard braced			Type V = Reinforced version		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS joint tape cage 130 single-piece, rough	Up to 130 mm	070910	7.55 kg	€37.00	–	–	–
ABS joint tape cage 160 single-piece, rough	140 – 160 mm	070911	7.85 kg	€38.00	–	–	–
ABS joint tape cage 200 single-piece, rough	170 – 200 mm	070912	8.20 kg	€39.00	070912V	9.85 kg	€60.00
ABS joint tape cage 250 single-piece, rough	210 – 250 mm	070913	8.60 kg	€40.00	070913V	10.65 kg	€64.00
ABS joint tape cage 300 single-piece, rough	260 – 300 mm	070914	9.05 kg	€41.00	070914V	11.50 kg	€68.00
ABS joint tape cage 400 single-piece, rough	310 – 400 mm	070915	9.95 kg	€43.00	070915V	13.25 kg	€73.00
ABS joint tape cage 500 single-piece, rough	410 – 500 mm	070916	11.50 kg	€45.00	070916V	15.65 kg	€77.00
ABS joint tape cage 600 single-piece, rough	510 – 600 mm	070917	12.00 kg	€48.00	070917V	17.00 kg	€81.00
ABS joint tape cage 700 single-piece, rough	610 – 700 mm	070918	12.50 kg	€51.00	070918V	18.30 kg	€85.00
ABS joint tape cage 800 single-piece, rough	710 – 800 mm	070919	14.05 kg	€54.00	070919V	20.70 kg	€89.00
ABS joint tape cage 900 single-piece, rough	810 – 900 mm	070920	14.55 kg	€57.00	070920V	22.00 kg	€93.00
ABS joint tape cage 1000 single-piece, rough	910 – 1000 mm	070921	15.05 kg	€60.00	070921V	23.35 kg	€96.00

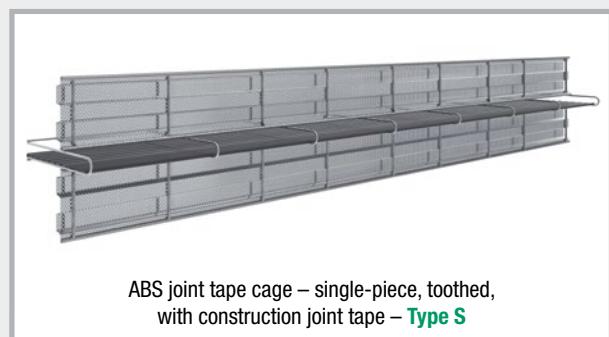
All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

When ordering, please specify the joint tape width (up to 320 mm).

You will find the suitable joint tapes on page 34. A separate order is required.



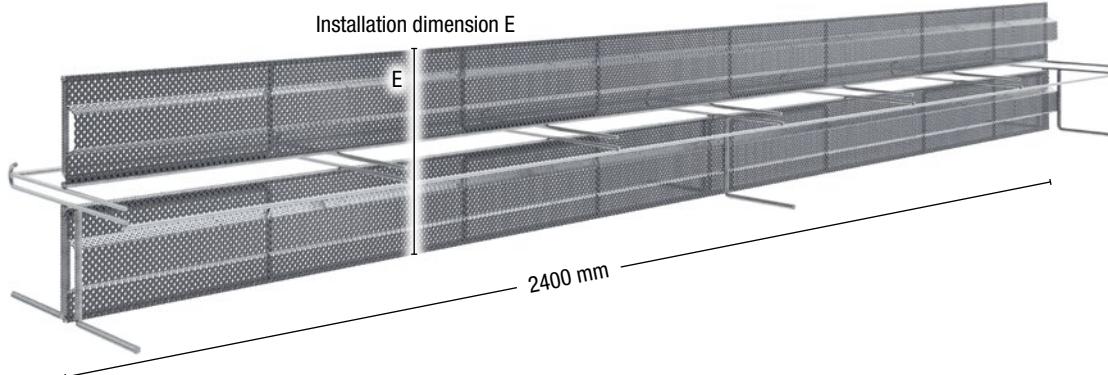
ABS joint tape cage – two-piece, toothed and rough version

Stopend panel for retrofitting joint sheet metal

Joint category: toothed and rough, according to DIN EN 1992-1-1 NA (EC2)

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Installation dimension E



ABS joint tape cage – two-piece, toothed version

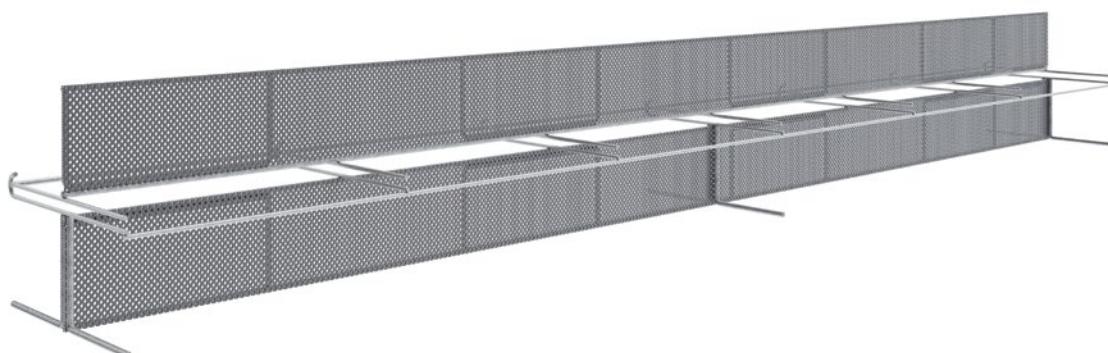
Element length: 2.4 m

Description	Installation dimension E = Rib lath width	toothed			rough		
		Art. no.	Weight per pc.	Price per m	Art. no.	Weight per pc.	Price per m
ABS joint tape cage 160 two-piece	up to 160 mm	070986	7.99 kg	€62.00	070980	7.82 kg	€58.00
ABS joint tape cage 200 two-piece	170 – 200 mm	070987	8.38 kg	€63.00	070981	8.17 kg	€59.00
ABS joint tape cage 250 two-piece	210 – 250 mm	070988	8.83 kg	€64.00	070982	8.55 kg	€60.00
ABS joint tape cage 300 two-piece	260 – 300 mm	070989	9.35 kg	€65.00	070983	9.01 kg	€61.00
ABS joint tape cage 400 two-piece	310 – 400 mm	070990	10.39 kg	€67.00	070984	9.92 kg	€63.00
ABS joint tape cage 500 two-piece	410 – 500 mm	070991	12.06 kg	€69.00	070985	11.48 kg	€65.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 500 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.



ABS joint tape cage – two-piece, rough version

Product description

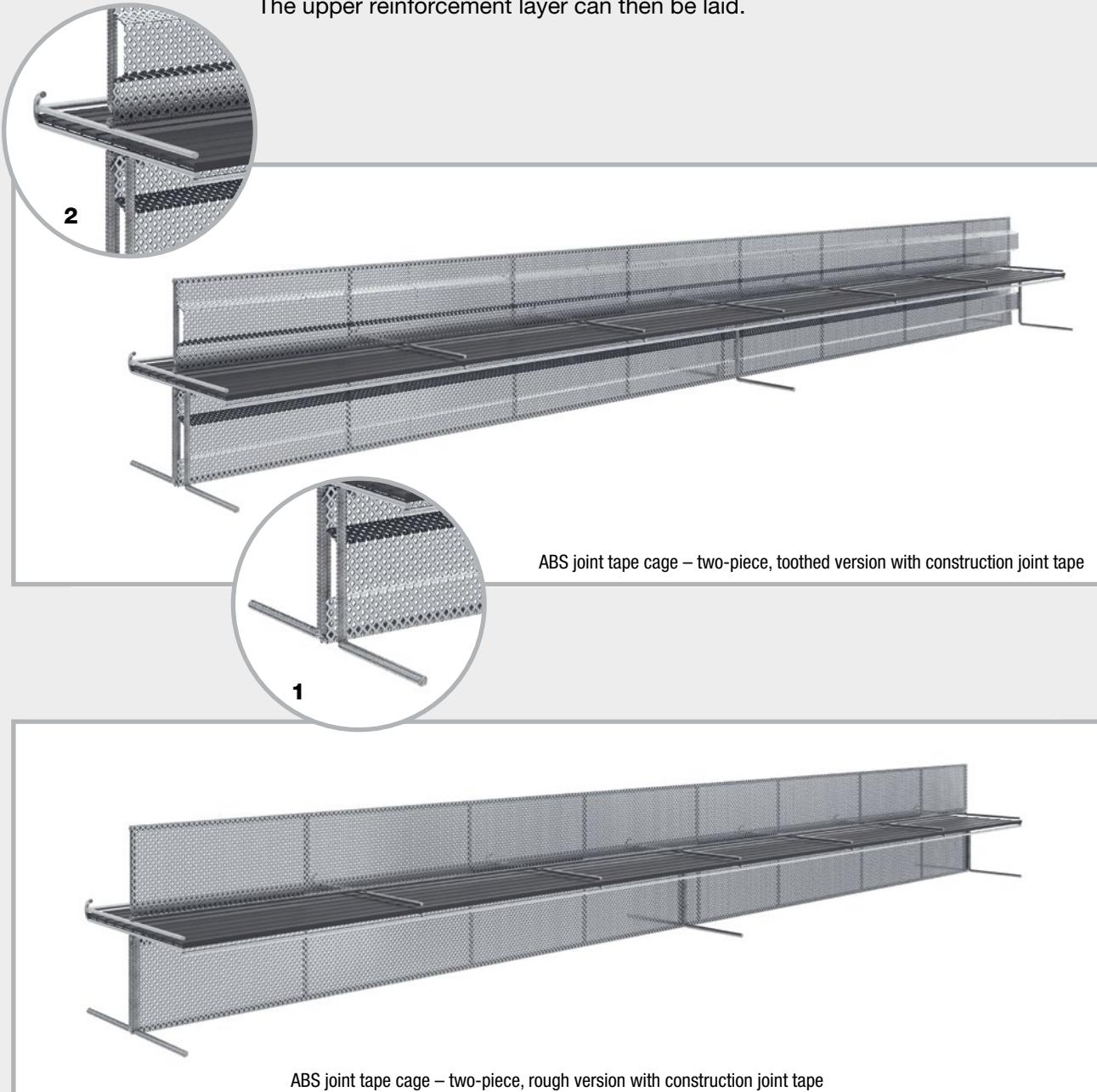
The two-piece structure of the joint tape cage ensures maximum ease of use. It consists of a head part and a base part between which the joint tape is installed.

Installation

The base part which is equipped with support feet on both sides (**see Fig. 1**), is fastened to the lower reinforcement layer.

The joint tape is placed on the guide cage of the base part. The head part is then hooked into the base part (**see Fig. 2**) and pushed down. It secures the joint tape between the two parts.

The upper reinforcement layer can then be laid.



When ordering, please specify the joint tape width (up to 320 mm).

You will find the suitable joint tapes on page 34. They must be ordered separately.

ABS joint tape cage

Deflection profiles toothed

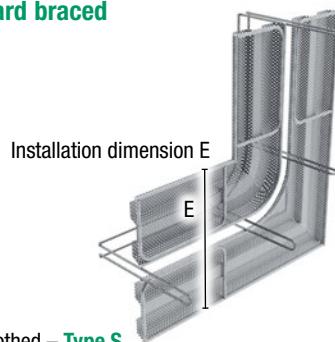
Stopend panel for retrofitting joint tapes,
suitable for combination with ABS joint tape cage single- and two-piece

Joint category: toothed, according to DIN EN 1992-1-1 NA (EC2)

Bending radius 150 mm according to DIN 18197 Technical details page 96

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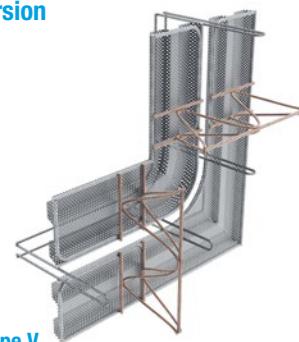
Type S = Standard braced



ABS joint tape cage

Deflection profile toothed – Type S

Type V = Reinforced version



ABS joint tape cage

Deflection profile toothed – Type V

Description	Installation dimension E = Rib lath width	Art. no.	Type S = Standard braced		Type V = Reinforced version		
			Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.
ABS joint tape cage ULP 160 toothed	Up to 160 mm	070963	5.28 kg	€125.00	–	–	–
ABS joint tape cage ULP 200 toothed	170 – 200 mm	070964	5.35 kg	€126.00	070964V	6.18 kg	€166.00
ABS joint tape cage ULP 250 toothed	210 – 250 mm	070965	5.44 kg	€127.00	070965V	6.48 kg	€169.00
ABS joint tape cage ULP 300 toothed	260 – 300 mm	070966	5.53 kg	€128.00	070966V	6.78 kg	€172.00
ABS joint tape cage ULP 400 toothed	310 – 400 mm	070967	5.72 kg	€130.00	070967V	7.38 kg	€177.00
ABS joint tape cage ULP 500 toothed	410 – 500 mm	070968	5.90 kg	€132.00	070968V	7.97 kg	€182.00
ABS joint tape cage ULP 600 toothed	510 – 600 mm	070969	6.08 kg	€134.00	070969V	8.57 kg	€187.00
ABS joint tape cage ULP 700 toothed	610 – 700 mm	070970	6.26 kg	€136.00	070970V	9.17 kg	€192.00
ABS joint tape cage ULP 800 toothed	710 – 800 mm	070971	6.44 kg	€138.00	070971V	9.76 kg	€197.00
ABS joint tape cage ULP 900 toothed	810 – 900 mm	070972	6.63 kg	€140.00	070972V	10.36 kg	€202.00
ABS joint tape cage ULP 1000 toothed	910 – 1000 mm	070973	6.81 kg	€142.00	070973V	10.60 kg	€207.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

When ordering, please specify the joint tape width (up to 320 mm).

You will find the suitable joint tapes on page 34. A separate order is required.

ABS joint tape cage

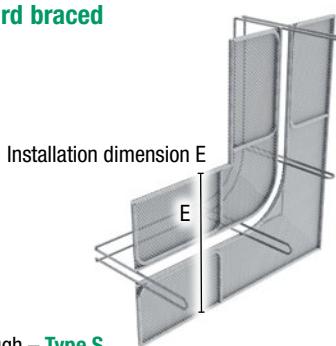
Deflection profiles rough

Stopend panel for retrofitting joint tapes,
suitable for combination with ABS joint tape cage single- and two-piece
Joint category: rough, according to DIN EN 1992-1-1 NA (EC2)

Bending radius 150 mm according to DIN 18197 Technical details page 96

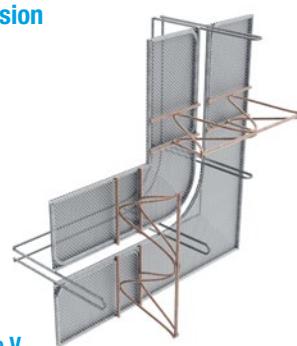
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Type S = Standard braced



ABS joint tape cage
Deflection profile rough – Type S

Type V = Reinforced version



ABS joint tape cage
Deflection profile rough – Type V

Description	Installation dimension E = Rib lath width	Art. no.	Type S = Standard braced		Type V = Reinforced version		
			Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.
ABS joint tape cage ULP 130 rough	Up to 130 mm	070950	5.18 kg	€122.00	–	–	–
ABS joint tape cage ULP 160 rough	140 – 160 mm	070951	5.22 kg	€123.00	–	–	–
ABS joint tape cage ULP 200 rough	170 – 200 mm	070952	5.28 kg	€124.00	070952V	6.11 kg	€164.00
ABS joint tape cage ULP 250 rough	210 – 250 mm	070953	5.35 kg	€125.00	070953V	6.39 kg	€167.00
ABS joint tape cage ULP 300 rough	260 – 300 mm	070954	5.42 kg	€126.00	070954V	6.67 kg	€170.00
ABS joint tape cage ULP 400 rough	310 – 400 mm	070955	5.57 kg	€128.00	070955V	7.23 kg	€175.00
ABS joint tape cage ULP 500 rough	410 – 500 mm	070956	5.72 kg	€130.00	070956V	7.79 kg	€180.00
ABS joint tape cage ULP 600 rough	510 – 600 mm	070957	5.86 kg	€132.00	070957V	8.35 kg	€185.00
ABS joint tape cage ULP 700 rough	610 – 700 mm	070958	6.01 kg	€134.00	070958V	8.91 kg	€190.00
ABS joint tape cage ULP 800 rough	710 – 800 mm	070959	6.15 kg	€136.00	070959V	9.47 kg	€195.00
ABS joint tape cage ULP 900 rough	810 – 900 mm	070960	6.30 kg	€138.00	070960V	10.03 kg	€200.00
ABS joint tape cage ULP 1000 rough	910 – 1000 mm	070961	6.44 kg	€140.00	070961V	10.59 kg	€205.00

All intermediate dimensions of the rib lath width available.

Installation dimension E > 1000 mm available on request

For proper formwork results, we recommend the combination with our ABS formwork comb type spacers.

When ordering, please specify the joint tape width (up to 320 mm).

You will find the suitable joint tapes on page 34. A separate order is required.

ABS expansion joint elements

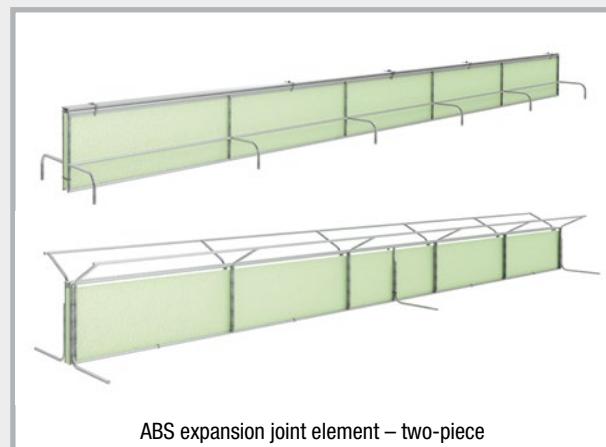
Thickness of the expansion joint insert (rigid foam): 20 mm

ABS expansion joint element – two-piece

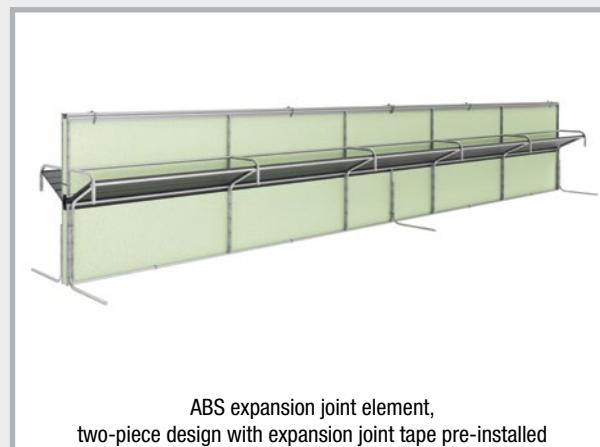
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Description	Component thickness	Length	Art. no.	Weight per kg	Price per m
ABS expansion joint element two-piece, 180-200	180 – 200 mm	2.4 m	070940	14.55 kg	€137.00
ABS expansion joint element two-piece, 210-300	210 – 300 mm	2.4 m	070941	14.75 kg	€141.00
ABS expansion joint element two-piece, 310-400	310 – 400 mm	2.4 m	070942	15.80 kg	€145.00
ABS expansion joint element two-piece, 410-500	410 – 500 mm	2.4 m	070943	15.95 kg	€149.00

Component thickness > 500 mm available on request



ABS expansion joint element – two-piece



ABS expansion joint element,
two-piece design with expansion joint tape pre-installed

Expansion joint elements for mounting an internal expansion joint tape up to 320 mm.

Product description

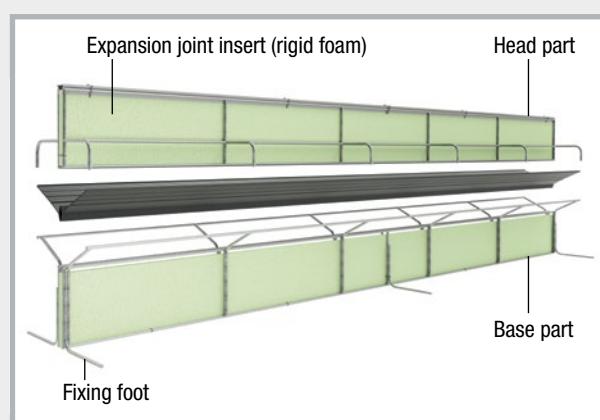
The two-piece element is designed for installation of internal expansion joint tapes with a joint tape width of up to 320 mm and 20 mm expansion core. The joint tapes are not included in the scope of delivery.

The base part, which is equipped with support feet, combines a self-standing rigid foam expansion joint insert with a 15° angled mounting cage for the expansion joint tape.

The head part which overlaps into the base part generates a straight guide for the expansion joint insert over the complete thickness of the constructional elements. The expansion core of the joint tape is secured in the middle of the expansion joint insert.

The total height (base part + joint tape expansion core + head part) must be matched to the planned thickness of the constructional elements.

You will find the suitable expansion joint tapes on page 34.

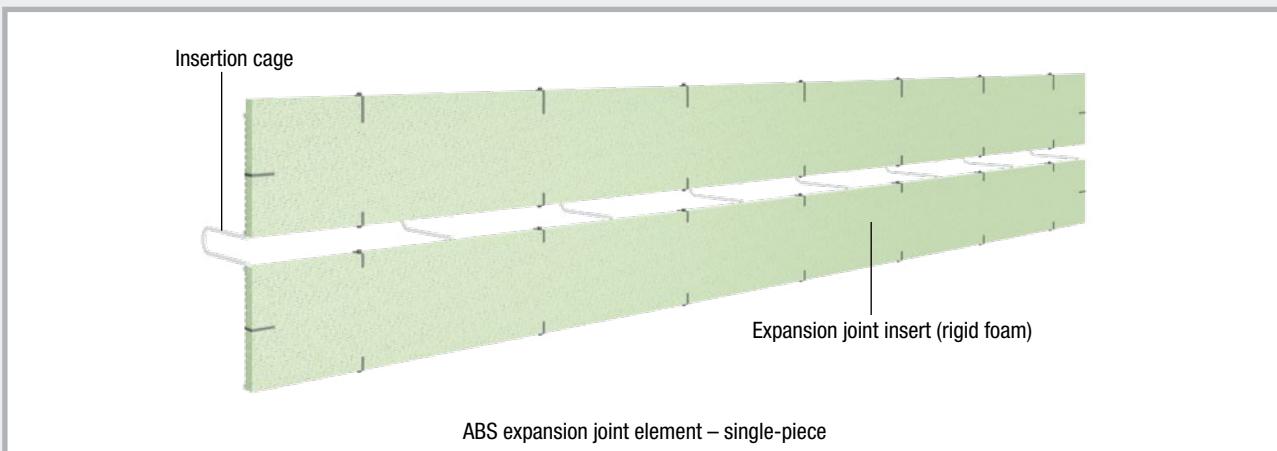


ABS expansion joint element – single-piece

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Description	Component thickness	Length	Art. no.	Weight per pc.	Price per m
ABS expansion joint element single-piece, 100 – 200 mm	100 – 200 mm	2.4 m	070948	8.65 kg	€74.00
ABS expansion joint element single-piece, 210 – 300 mm	210 – 300 mm	2.4 m	070949	9.31 kg	€78.00
ABS expansion joint element single-piece, 310 – 400 mm	310 – 400 mm	2.4 m	070974	10.87 kg	€82.00
ABS expansion joint element single-piece, 410 – 500 mm	410 – 500 mm	2.4 m	070975	11.53 kg	€86.00

All intermediate sizes are available for delivery.
Component thickness > 500 mm available on request.

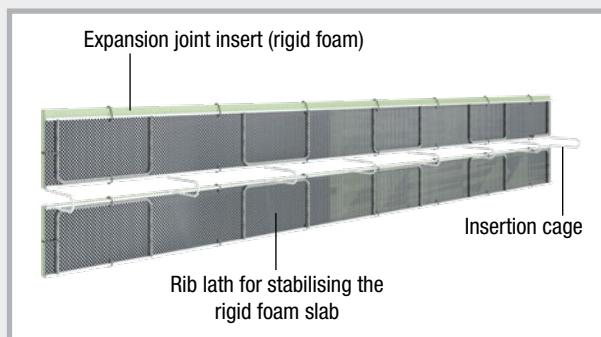


Single-piece expansion joint element for mounting an internal expansion joint tape of up to 320 mm with 20 mm expansion core.

Product description

The element is designed for use of internal expansion joint tapes with a joint tape width of up to 320 mm and 20 mm expansion core. The joint tapes are not included in the scope of delivery.

The element combines an expansion joint insert which is adapted to the thickness of the component, with a centrally positioned joint tape cage for mounting the expansion joint tape. The expansion joint insert is stabilised by rib lath strips. As a result, the element can also be used for wall joints which run vertically.



Installation

The expansion joint tape is inserted into the cage until the expansion core of the joint tape forms a line with the expansion joint insert. This is where it is secured in its position. The half of the joint tape which protrudes from the cage must be secured in position on site.

When ordering, please specify the joint tape width.

You will find the suitable expansion joint tapes on page 34. They must be ordered separately.

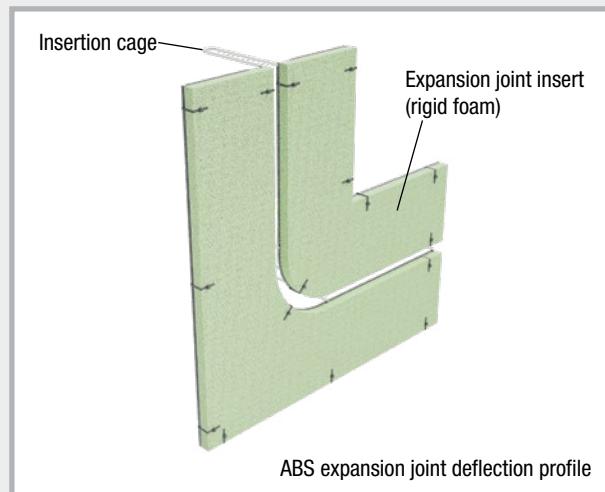
ABS expansion joint deflection profile

Suitable for combination with ABS expansion joint element, single-piece and two-piece

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Description	Component thickness	Art. no.	Weight per pc.	Price per m
ABS expansion joint deflection profile 100 – 200 mm	100 – 200 mm	070976	3.77 kg	€155.00
ABS expansion joint deflection profile 210 – 300 mm	210 – 300 mm	070977	4.04 kg	€160.00
ABS expansion joint deflection profile 310 – 400 mm	310 – 400 mm	070978	5.21 kg	€165.00
ABS expansion joint deflection profile 410 – 500 mm	410 – 500 mm	070979	5.59 kg	€170.00

All intermediate sizes are available for delivery.
Component thickness > 500 mm available on request.



Single-piece expansion joint element for mounting an internal expansion joint tape of up to 320 mm with 20 mm expansion core.

For changing the direction of the expansion joint tape from the horizontal to the vertical laying direction.

Product description

The element is designed for use of internal expansion joint tapes with a joint tape width of up to 320 mm with 20 mm expansion core. The joint tapes are not included in the scope of delivery.

The element combines a two-piece expansion joint insert which is adapted to the thickness of the component, with a centrally positioned joint tape cage for mounting the expansion joint tape.

The joint tape cage runs from the horizontal laying direction of the joint tape into the vertical laying direction, which is the typical installation situation of the floor slab/wall transition. The laying radius of the expansion joint tape which is determined by the joint tape cage meets the requirements for the minimum bending radius for internal expansion joint tapes of 250 mm according to DIN 18197.

Installation

The expansion joint tape is inserted into the cage until the expansion core of the joint tape forms a line with the expansion joint insert. This is where it is secured in its position. The half of the joint tape which protrudes from the cage must be secured in position on site.

When ordering, please specify the joint tape width.

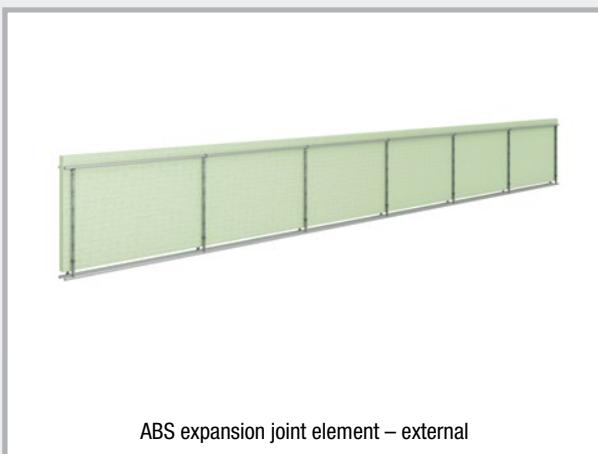
You will find the suitable expansion joint tapes on page 34. They must be ordered separately.

ABS expansion joint insert – external

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235

Description	Component thickness	Length	Art. no.	Weight per kg	Price per m
ABS expansion joint element external, 180-200	180 – 200 mm	2.4 m	070944	4.90 kg	€40.00
ABS expansion joint element external, 210-300	210 – 300 mm	2.4 m	070945	5.45 kg	€42.00
ABS expansion joint element external, 310-400	310 – 400 mm	2.4 m	070946	5.60 kg	€44.00
ABS expansion joint element external, 410-500	410 – 500 mm	2.4 m	070947	6.50 kg	€46.00

All intermediate sizes are available for delivery.
Component thickness > 500 mm available on request.



ABS expansion joint element – external



ABS expansion joint element – external
with expansion joint tape pre-installed

Expansion joint elements for external expansion joint tapes and joint tapes for capping joints (specify additionally when ordering).

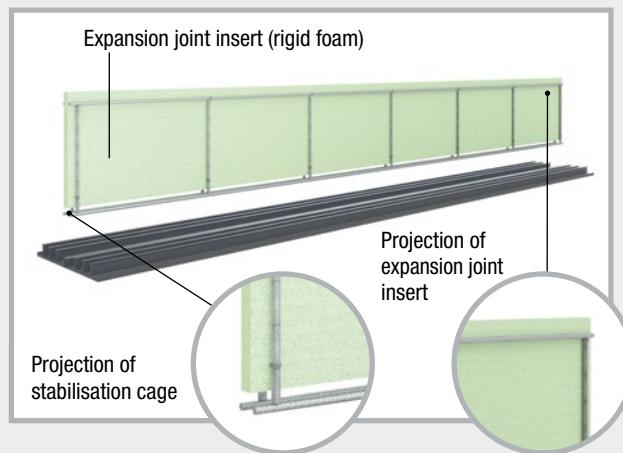
Product description

The external ABS expansion joint element is designed for external expansion joint tapes and joint tapes for capping joints with an expansion core of 20 mm. The joint tapes are not included in the scope of delivery.

It comprises a rigid foam expansion joint insert with a thickness of 20 mm, combined with a stabilisation cage arranged on both sides. The stabilisation cage has a projection in the base area which is matched to the height of the expansion core and overlaps with the expansion core. In the head area, the expansion joint insert projects around the concrete cover.

When using joint tapes for capping joints, the stabilisation cage is set back by the overlap length of the joint tapes for capping joints.

You will find the suitable expansion joint tapes on page 34.



ABS sound joint elements

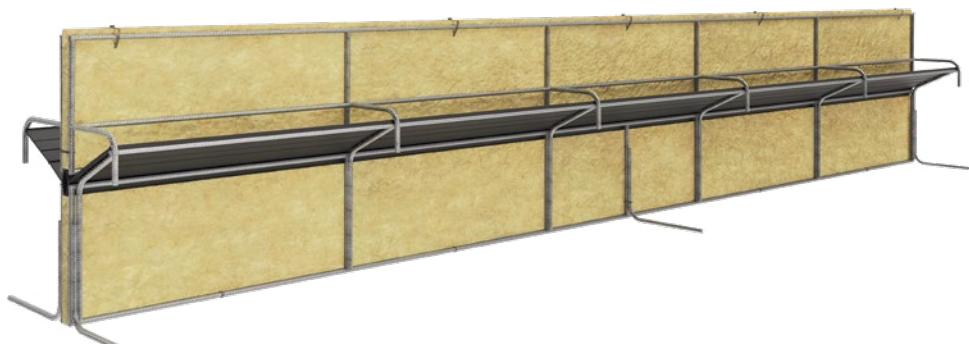
Thickness of sound joint insert (soft wood fibre board): 30 mm according to DIN 4109

ABS sound joint element – two-piece

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Description	Component thickness	Length	Art. no.	Weight per kg	Price per m
ABS sound joint element two-piece, 180 – 200 mm	180 – 200 mm	2.4 m	070940S	14.41 kg	€145.00
ABS sound joint element two-piece, 210 – 300 mm	210 – 300 mm	2.4 m	070941S	14.96 kg	€150.00
ABS sound joint element two-piece, 310 – 400 mm	310 – 400 mm	2.4 m	070942S	15.81 kg	€155.00
ABS sound joint element two-piece, 410 – 500 mm	410 – 500 mm	2.4 m	070943S	16.35 kg	€160.00

All intermediate dimensions of the sound joint insert available.
Component thickness > 500 mm available on request.



ABS sound joint element – two-piece

Two-piece sound joint element for mounting an internal expansion joint tape or construction joint tape of up to 320 mm.

Product description

The two-piece element is designed for use of internal expansion joint tapes and construction joint tapes with a joint tape width of up to 320 mm. The joint tapes are not included in the scope of delivery.

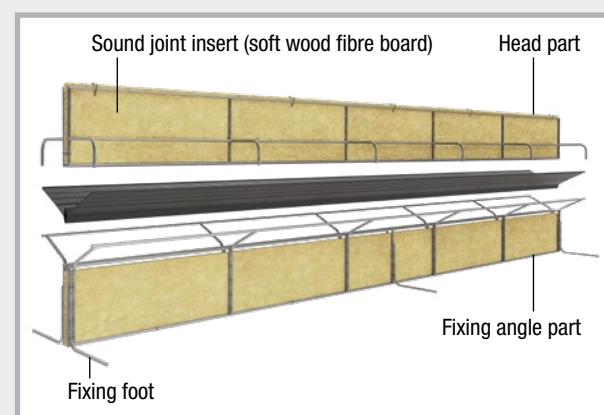
The base part formed with support feet positioned on both sides combines a self-standing sound joint insert with a 15° angled mounting cage made of soft wood fibre board for the joint tape.

The head part which overlaps into the base part generates a straight guide for the sound joint insert over the complete thickness of the constructional elements.

The total height (base part + thickness of the joint tape (or expansion core) + head part) must be matched to the planned thickness of the constructional elements.

When ordering, please specify the joint tape width.

You will find the suitable joint tapes on page 34. They must be ordered separately.

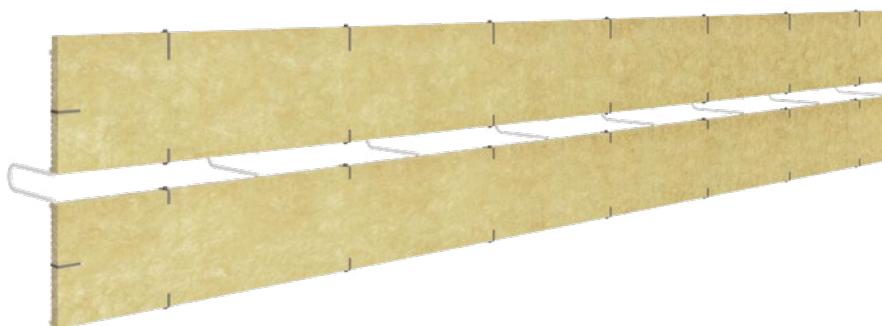


ABS sound joint element – single-piece

Art.Gr.
236

Description	Component thickness	Length	Art. no.	Weight per kg	Price per m
ABS sound joint element single-piece, 100 – 200 mm	100 – 200 mm	2.4 m	070948S	8.52 kg	€85.00
ABS sound joint element single-piece, 210 – 300 mm	210 – 300 mm	2.4 m	070949S	9.11 kg	€90.00
ABS sound joint element single-piece, 310 – 400 mm	310 – 400 mm	2.4 m	070974S	10.60 kg	€105.00
ABS sound joint element single-piece, 410 – 500 mm	410 – 500 mm	2.4 m	070975S	11.20 kg	€110.00

All intermediate dimensions of the sound joint insert available.
Component thickness > 500 mm available on request.



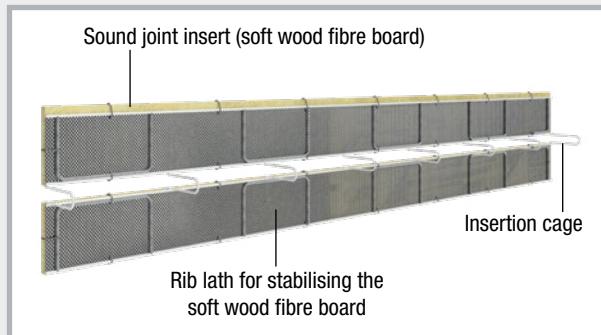
ABS sound joint element – single-piece

Single-piece sound joint tape for mounting an internal expansion joint tape or construction joint tape of up to 320 mm.

Product description

The element is designed for use of internal expansion joint tapes or construction joint tapes with a joint tape width of up to 320 mm. The joint tapes are not included in the scope of delivery.

The element combines a sound joint insert which is adapted to the thickness of the component and separated by a centrally positioned joint tape cage for mounting the joint tape. The soft wood fibre board is stabilised by rib lath strips. As a result, the element can also be used for wall joints which run vertically.



Installation

The joint tape is inserted into the cage until it is positioned centrally in a line with the sound joint insert. This is where it is secured in its position. The half of the joint tape which protrudes from the cage must be secured in position on site.

When ordering, please specify the joint tape width.

You will find the suitable expansion joint tapes on page 34. They must be ordered separately.

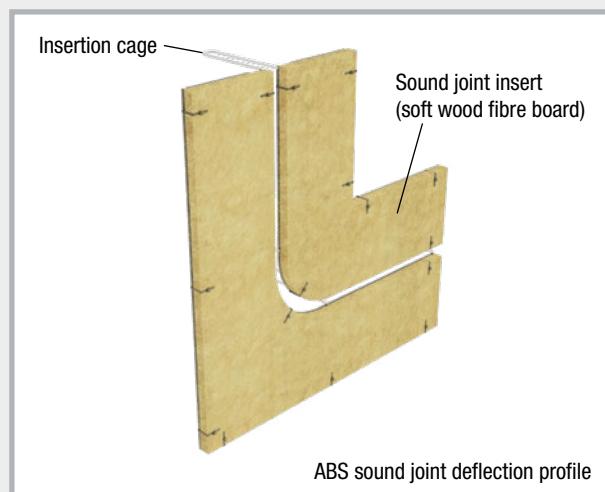
ABS sound joint deflection profile

Suitable for combination with ABS sound joint element, single-piece and two-piece

Art.Gr.
236

Description	Component thickness	Art. no.	Weight per pc.	Price per m
ABS sound joint deflection profile 100 – 200 mm	100 – 200 mm	070976S	3.72 kg	€180.00
ABS sound joint deflection profile 210 – 300 mm	210 – 300 mm	070977S	4.02 kg	€185.00
ABS sound joint deflection profile 310 – 400 mm	310 – 400 mm	070978S	5.20 kg	€190.00
ABS sound joint deflection profile 410 – 500 mm	410 – 500 mm	070979S	5.60 kg	€195.00

All intermediate dimensions of the sound joint insert available.
Component thickness > 500 mm available on request.



Single-piece sound joint tape for mounting an internal expansion joint tape or construction joint tape of up to 320 mm.

For changing the direction of the joint tape from the horizontal to the vertical laying direction.

Product description

The element is designed for use of internal expansion joint tapes and construction joint tapes with a joint tape width of up to 320 mm. The joint tapes are not included in the scope of delivery.

The element combines a two-piece sound joint insert which is adapted to the thickness of the component, with a centrally positioned joint tape cage for mounting the joint tape.

The joint tape cage runs from the horizontal laying direction of the joint tape into the vertical laying direction, which is the typical installation situation of the floor slab/wall transition. The laying radius of the joint tape being used which is determined by the joint tape cage meets the requirements for the minimum bending radius for internal expansion joint tapes of 250 mm according to DIN 18197.

Installation

The expansion joint tape is inserted into the cage until the expansion core of the joint tape forms a line with the expansion joint insert. This is where it is secured in its position. The half of the joint tape which protrudes from the cage must be secured in position on site.

When ordering, please specify the joint tape width.

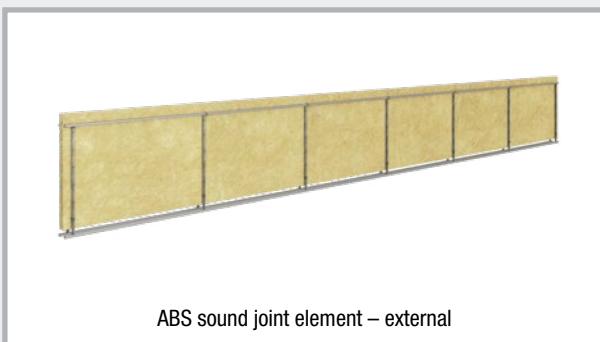
You will find the suitable expansion joint tapes on page 34. They must be ordered separately.

ABS sound joint element – external

Art.Gr.
236

Description	Component thickness	Length	Art. no.	Weight per kg	Price per m
ABS sound joint element external, up to 200 mm	up to 200 mm	2.4 m	070944S	2.37 kg	€62.00
ABS sound joint element external, 210 – 300 mm	210 – 300 mm	2.4 m	070945S	2.68 kg	€67.00
ABS sound joint element external, 310 – 400 mm	310 – 400 mm	2.4 m	070946S	3.00 kg	€72.00
ABS sound joint element external, 410 – 500 mm	410 – 500 mm	2.4 m	070947S	3.31 kg	€78.00

All intermediate dimensions of the sound joint insert available.
Component thickness > 500 mm available on request.



ABS sound joint element – external

ABS sound joint element – external
with expansion joint insert pre-installed

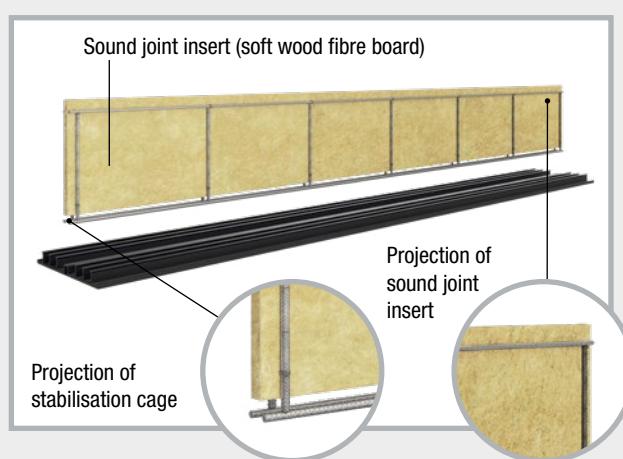
Single-piece sound joint tape for mounting an external expansion joint tape or construction joint tape (specify when ordering).

Product description

The single-piece element is designed for use of external expansion joint tapes with 20 mm expansion core and external construction joint tapes. The joint tapes are not included in the scope of delivery.

It comprises a soft wood fibre board sound joint insert with a thickness of 30 mm, combined with a stabilisation cage arranged on both sides. For combination with external expansion joint tapes, the stabilisation cage is manufactured with a projection in the base area which is adapted to the expansion core. This projection is omitted for external construction joint tapes.

In the head area, the sound joint insert projects around the concrete cover regardless of the type of joint tape used.



Installation

The external expansion joint tape or construction joint tape is applied to the blinding layer. The sound joint element is then positioned above the expansion core (in the case of expansion joint tapes) or in the middle of the construction joint tape (in the case of construction joint tapes), and secured above the stabilisation cage plumb against the reinforcement which is interrupted in the sound joint area.

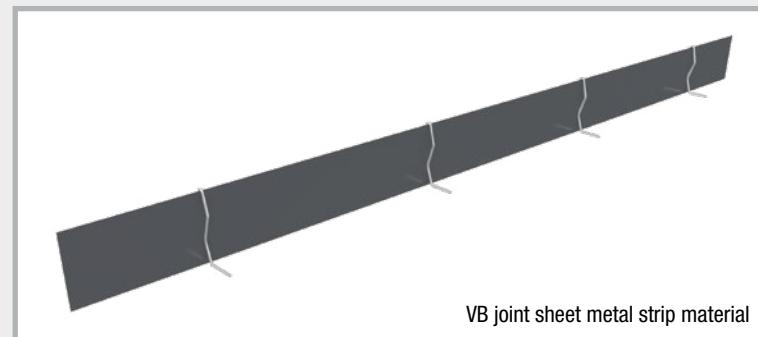
You will find the suitable expansion joint tapes on page 34. They must be ordered separately.

VB joint sheet metal high-pressure metal sheets

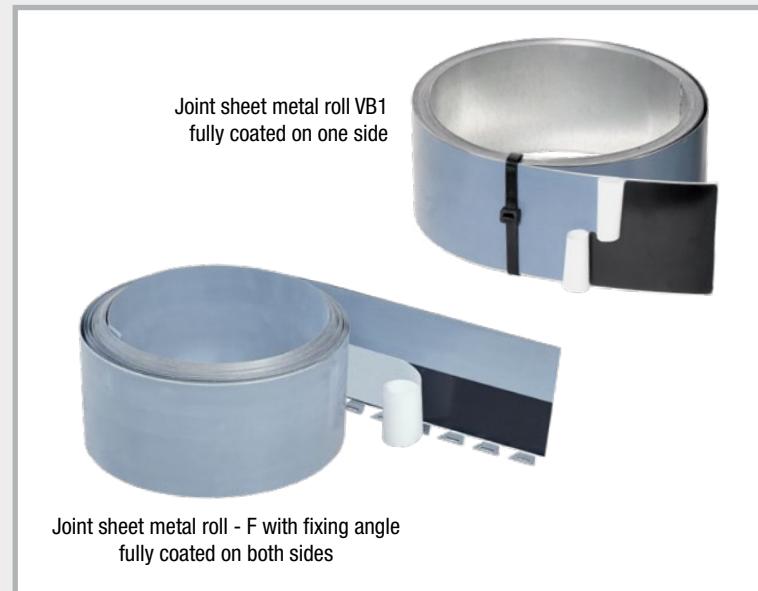


Product description

- VB joint sheet metal consists of a galvanised carrier sheet which is coated with a reactive, bitumen-free polymer coating. The coating forms a watertight bond with the fresh concrete.
- High pressure watertightness with low embedment depth
- Extensive tests (abP, ETA, application tests)
- Extensive accessories for crack-inducing joints and stopend panels



VB joint sheet metal strip material



Description	Height	Length	Water pressure acc. to application test	Water pressure according to General Building Supervisory Test Certificate (abP)	Embedment depth Floor slab
Strips	80 mm	2.4 m	6 bar (60 m water column)	1 bar (10 m water column)	$\geq 30 \text{ mm}$ $\leq \frac{1}{2} \text{ sheet height}$
	160 mm	2.0 m / 2.4 m	8 bar (80 m water column)	2 bar (20 m water column)	
Rolls	120 mm	20 m	6 bar (60 m water column)	1.6 bar (16 m water column)	$\geq 30 \text{ mm}$ $\leq \frac{1}{2} \text{ sheet height}$
	160 mm	20 m	8 bar (80 m water column)	2.0 bar (20 m water column)	
	240 mm	20 m	8 bar (80 m water column)	2.0 bar (20 m water column)	
Rolls with fixing angle	160 mm	20 m	8 bar (80 m water column)	2.0 bar (20 m water column)	$\geq 30 \text{ mm}$ $\leq \frac{1}{2} \text{ sheet height}$

Technical data and detailed installation instructions can be found at

www.master tec.eu

Installation instructions

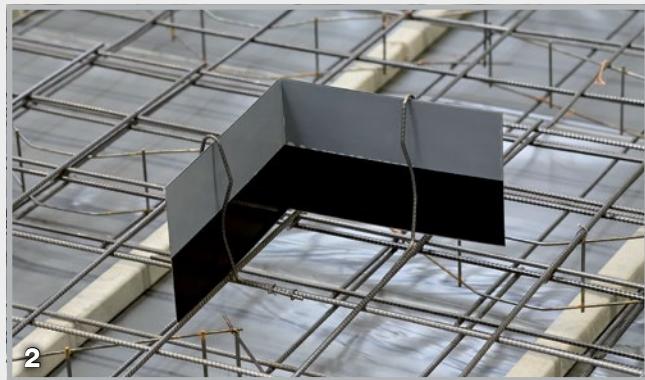
VB joint sheet metal is available as strips or rolls with a special coating on one or both sides.

1. When installing sheet metal with coating on one side, the coating must face the water side.
2. The coating is protected against dirt by a protective film. The protective film must be removed as late as possible, but definitely before concreting.
3. The protective film is separated halfway up the sheet. When concreting the floor slab, the upper half of the protective film remains on the coating and protects it from becoming contaminated during and after concreting. The upper half is removed as late as possible before the wall is concreted (see Fig. 1).
4. Corner formations can be produced on site without any problems (see Fig. 2).
5. In the joint area, the protective film is folded back, the sheet is overlapped over a length of 6 cm, bonded over the entire surface and secured by means of system-specific fixing clips (see Fig. 3).
6. The embedment depth in the first concreting section must not be less than 30 mm and must not exceed half the sheet height.
- 7a. The position on the upper reinforcement layer is secured by means of the system-specific omega brackets (see Fig. 4).
- 7b. In the case of the **joint sheet metal roll F**, the position is secured by tying the fixing angle to the upper layer of reinforcement using tie wire (see Fig. 5).
8. The joint sheet metal must form a self-contained system that covers all construction and controlled crack joints.

Extensive system accessories available

Crack-inducing profiles pages 30 – 31

Stopend panels pages 38 – 73

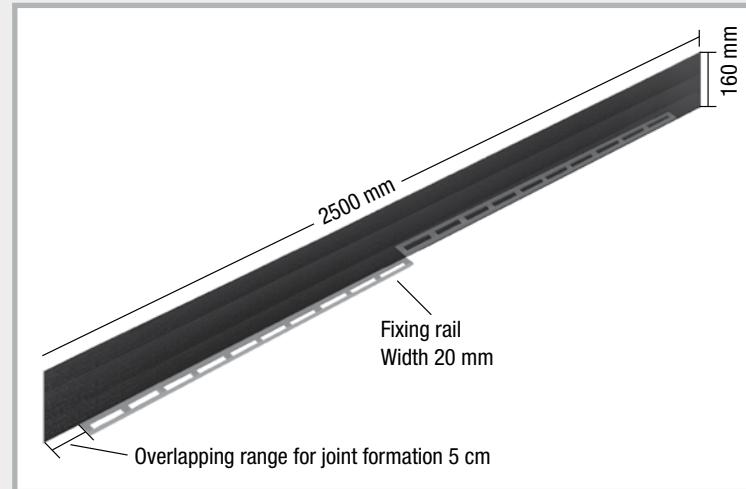


MASTER joint sheet metal Premium



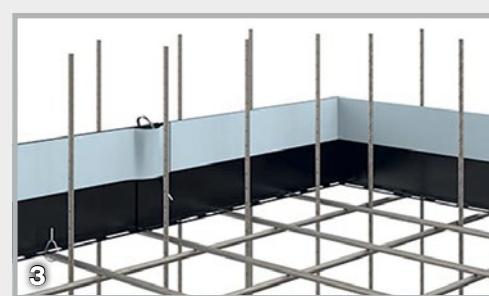
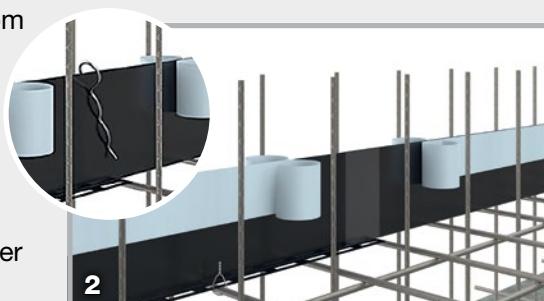
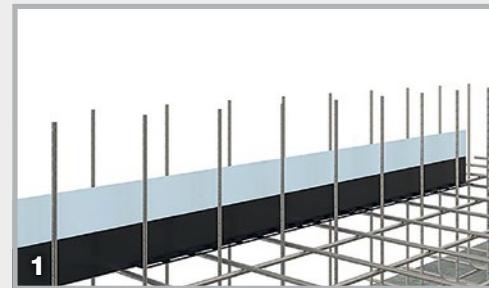
Product description

- MASTER joint sheet metal Premium is made of galvanised sheet steel which is fully coated on both sides with a special coating. The coating forms a watertight bond with the fresh concrete.
- Element length 2500 mm
- General Building Supervisory Test



Installation instructions

- The coating is protected against dirt by a protective film. The protective film must be removed as late as possible, but definitely before concreting.
- The protective film is separated halfway up the sheet. When concreting the floor slab, the upper half of the protective film remains on the coating and protects it from becoming contaminated during and after concreting. The upper half is removed as late as possible before the wall is concreted (see Fig. 1).
- In the joint area, the protective film is folded back, the sheets are overlapped over a length of 6 cm, bonded over the entire surface and secured by means of system-specific fixing clips (see Fig. 2).
- The embedment depth in the first concreting section must not be less than 30 mm and must not exceed half the sheet height (see Fig. 4).
- Corner formations and other geometries can be produced on site without any problems (see Fig. 3).
- The position is secured on the upper layer of reinforcement by tying the fixing angle to the upper layer of reinforcement.
- The joint sheet metal must form a self-contained system that covers all construction and controlled crack joints.



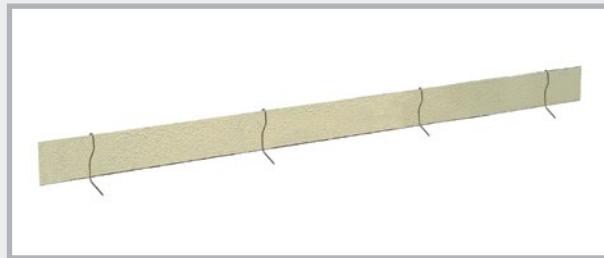
Joint sheet metal MB Overlap

Mineral-coated joint sheet metal
for waterproofing of construction joints



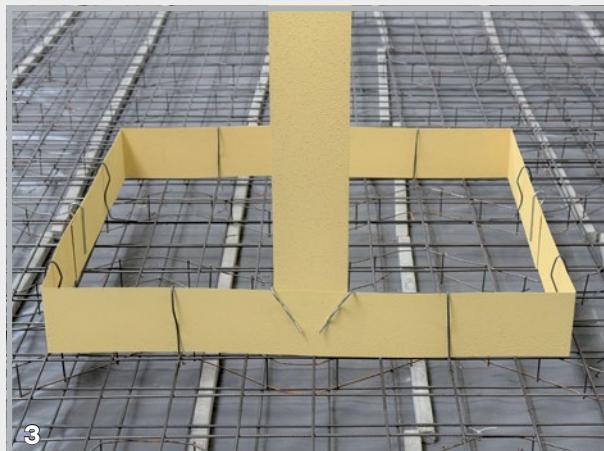
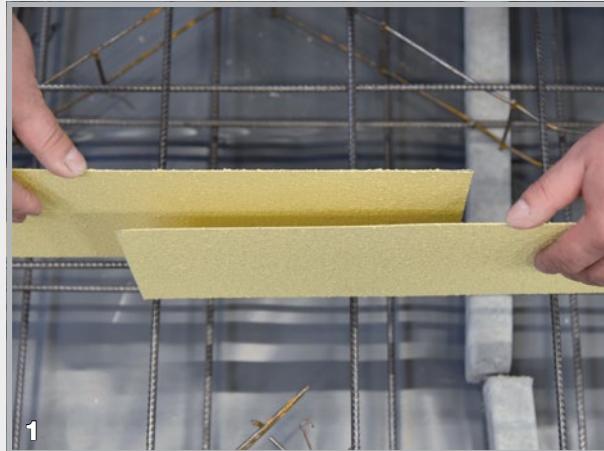
Description

Strips with full mineral coating on both sides, 160 mm high. The metal waterproofing profiles are supplied with 55 fixing clips. You will find suitable omega brackets (art. no. 070415) on page 32. They must be ordered separately.



Installation instructions

1. The mineral coating must be protected from dirt.
2. The sheet metal can be cut to length on site without any problems.
3. Two sheets are joined by overlapping. The overlap length must be at least 20 cm and must be additionally secured with a fixing clip (see Fig. 1).
4. The embedment depth in the first concreting section must not be less than 30 mm and must not exceed half the sheet height.
5. Corner formations can be produced on site without any problems (see Fig. 2).
6. The position on the upper reinforcement layer is secured by means of the system-specific omega brackets.
7. The joint sheet metal must form a self-contained, gap-free system (see Fig. 3).



Technical data and detailed
installation instructions can be found at
www.mastertec.eu

AKTIV joint sheet metal



Bentonite-coated joint sheet metal
for waterproofing of
construction joints

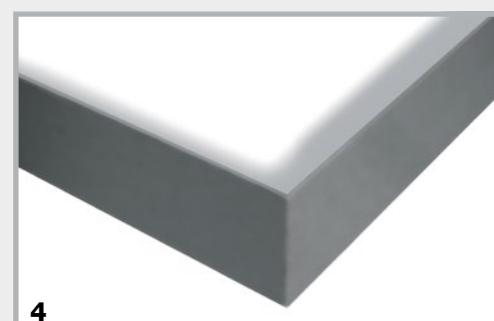
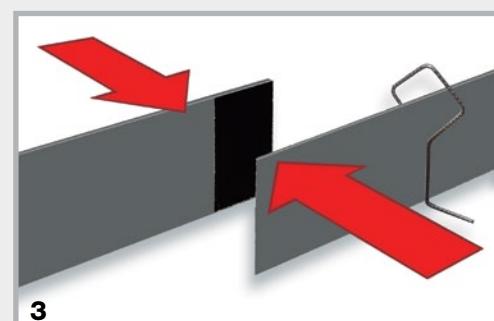
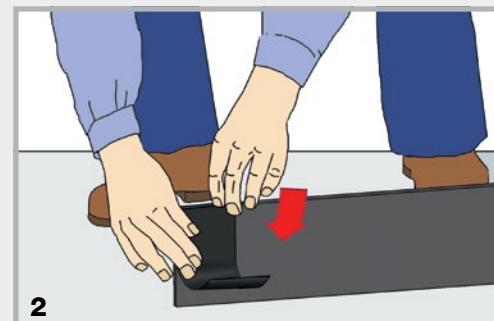


Description

Joint sheet metal, fully coated on one side with bentonite. Delivered complete with installation accessories.

Installation instructions

1. The bentonite coating must face the water side.
2. The bentonite coating must be protected from dirt and moisture.
3. The sheet metal can be cut to length on site without any problems (see Fig. 1).
4. Two elements are joined by means of butyl adhesive tape. Strips of this tape are already mounted at the start and end of the roll. When cutting to size, the supplied tape must be bonded to the bentonite coating at the cutting edge. Press the adhesive surface firmly together and secure with a fixing clip (see Fig. 2 + 3).
5. The embedment depth in the first concreting section must not be less than 35 mm and must not exceed half the sheet height.
6. Corner formations can be produced on site without any problems (see Fig. 4).
7. The position on the upper reinforcement layer is secured by means of the system-specific omega brackets.
8. The joint sheet metal must form a self-contained, gap-free system.



Technical data and detailed installation instructions can be found at www.master tec.eu

MASTER-MultiFlex (MMF 140)

The certified active joint tape for waterproofing of construction joints in concrete. MMF 140 is a PVC joint tape with an additional swelling profile on the bottom.



MMF 140 product description

Material: Soft PVC

MMF 140 does not contain any substances of very high concern (SVHCs) according to Annex XIV of the REACH Regulation.

MMF 140 thus complies with European standards.

Swelling profile: Active TPE

Height: 140 mm

Thickness: approx. 6 mm

Profile: Corrugated

Safety: with marking strips for embedment depth

Elongation at break: High

Tensile strength: High

Workability: -10°C to +60°C

Joinability: Bonded overlapping joint or with our MASTER-Connect "active"

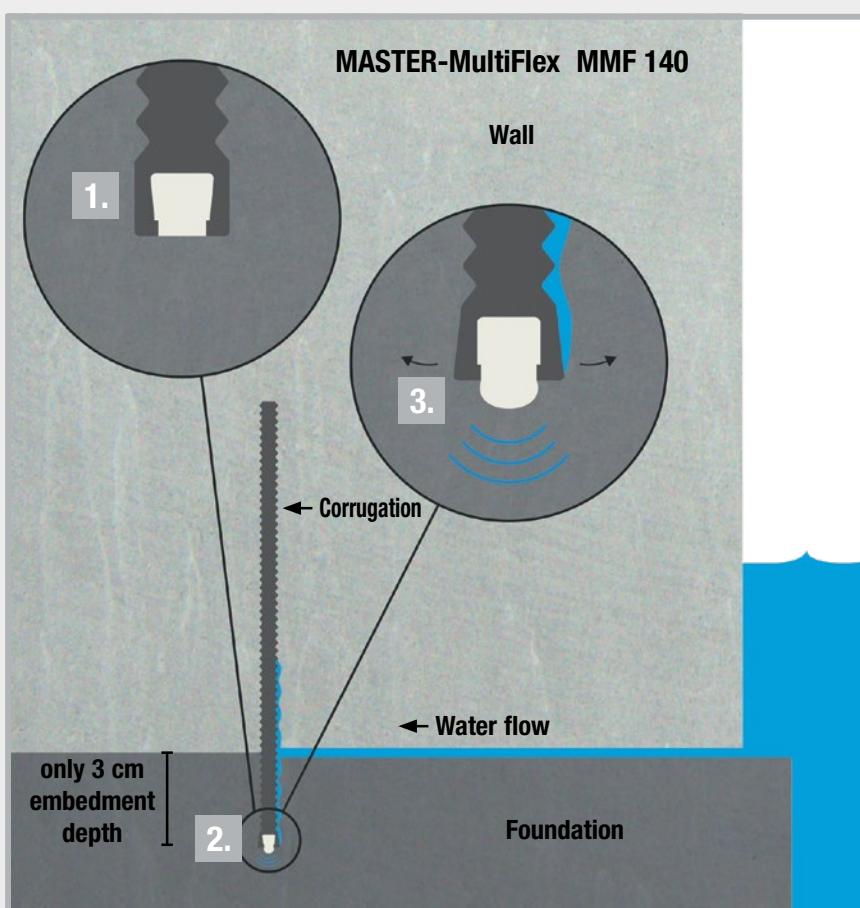


Function of MMF 140

1. The figure shows the bottom of the joint tape with the swelling profile still not activated.

2. The water pressure-tightness of MMF 140 has already been proven from an embedment depth of 3 cm. In the image, you see the joint tape with the activated swelling profile.

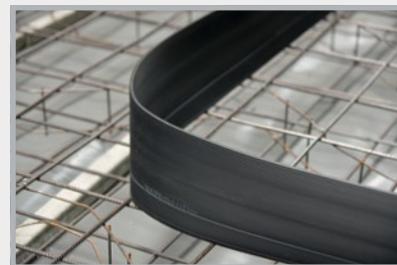
3. Here, you see the function of the swelling profile. It expands downwards and compresses the joint. For further security the two flanks are pushed outwards, also stopping the flow of water.



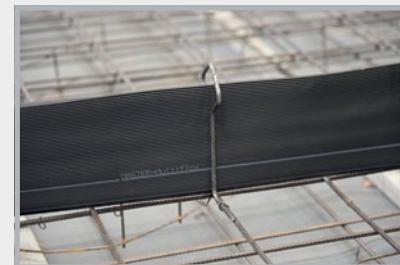
Cutting and installing MMF 140



The non-sagging joint tape can be cut to length easily with a cutter.

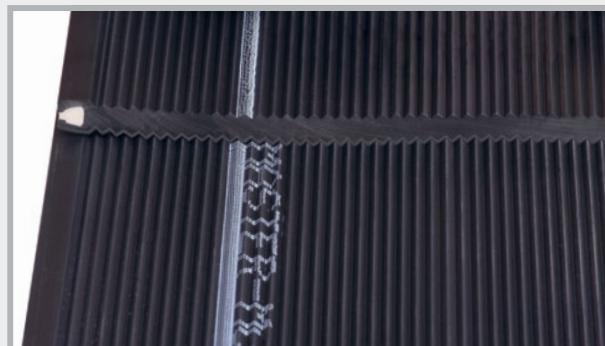


Non-sag but flexible.



Fastened using the system-specific MMF 140 omega brackets. These have to be ordered separately.

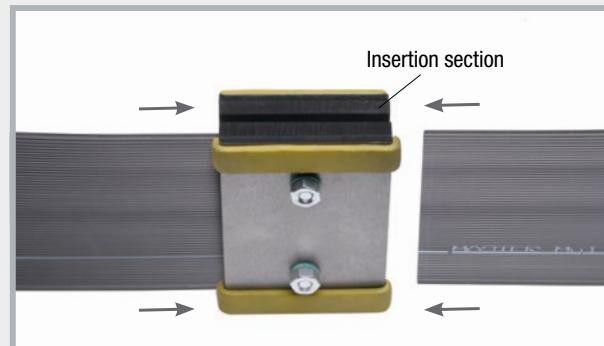
Bonding options



Bonded overlapping joint:

Time required at the construction site: approx. 15 – 30 min.

Overlapping bonded joint.



Screwed connection:

Time required at the construction site: approx. 10-15 min.

The MMF 140 joint tape is inserted into the MASTER-Connect on the left and right, and the screws are tightened to approximately 8 Nm.



VB joint sheet metal JGS (slurry/liquid manure/silage effluent)

National technical approval (abZ):

Z-74.101-209

The Ordinance on Facilities Handling Substances that are Hazardous to Water (AwSV) has defined the requirements for agricultural installations nationwide since 1 August 2017. The aim is to protect water from substances hazardous to water from agricultural structures such as silos, slurry tanks or biogas facilities.

Special requirements are placed on the construction joint sealants here. These must have verification of fitness for use in the form of a national technical approval (abZ). By extensive resistance and functional tests the VB joint sheet metal JGS has received this verification of fitness for use.



Product description

- VB joint sheet metal JGS consists of a galvanised carrier sheet with a highly resistant special coating. The coating forms a watertight bond with the fresh concrete.
- The coating is resistant to media that affect components in agricultural buildings and biogas facilities.
- National technical approval (abZ) granted by DIBt
- Low embedment depth of 35 mm

Description	Height	Length	Tank height	Embedment depth Floor slab
Strips	160 mm	2.4 m	≤ 10 m	≥ 35 mm ≤ ½ sheet height
Rolls	160 mm	20 m	≤ 10 m	≥ 35 mm ≤ ½ sheet height
Rolls with fixing angle	160 mm	20 m	≤ 10 m	≥ 35 mm ≤ ½ sheet height

Installation instructions

The installation is identical to the VB joint sheet metal (page 75).

However, the embedment depth must be 35 mm into the first concreting section.

Accessories

The verification of fitness for use in the form of the national technical approval (abZ) applies not only to waterproofing products for construction joints but also to pipe penetrations. Here, RONDO Protect offers a waterproofing solution for all common pipe types. You will find an overview on page 141 in our complete catalogue.



Technical data and installation instructions can be found at www.mastertec.eu

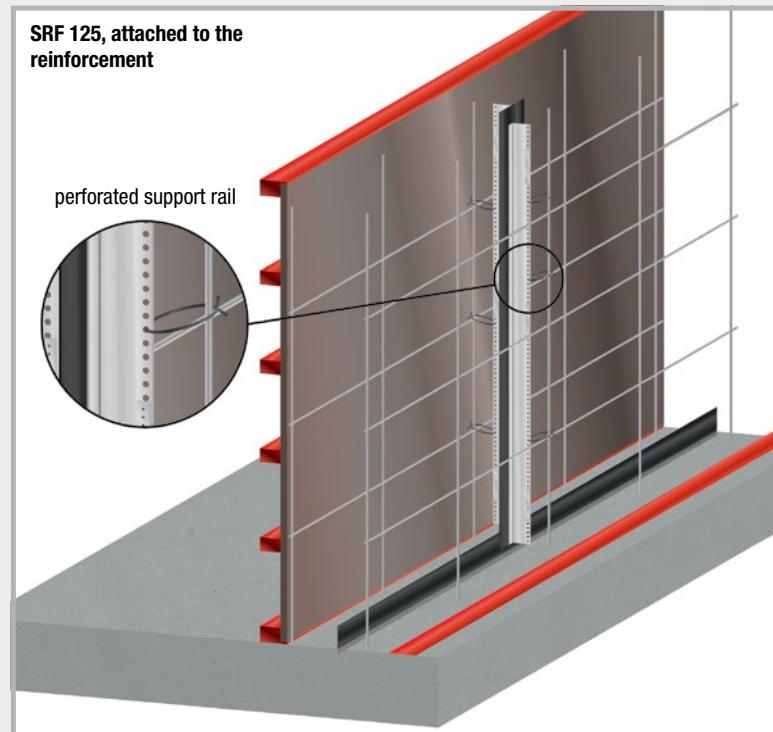
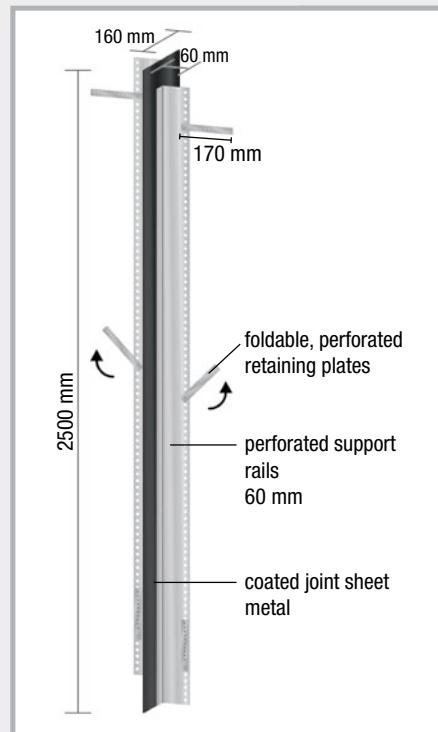
Crack-inducing profiles

Crack-inducing profile SRF 125 Multi

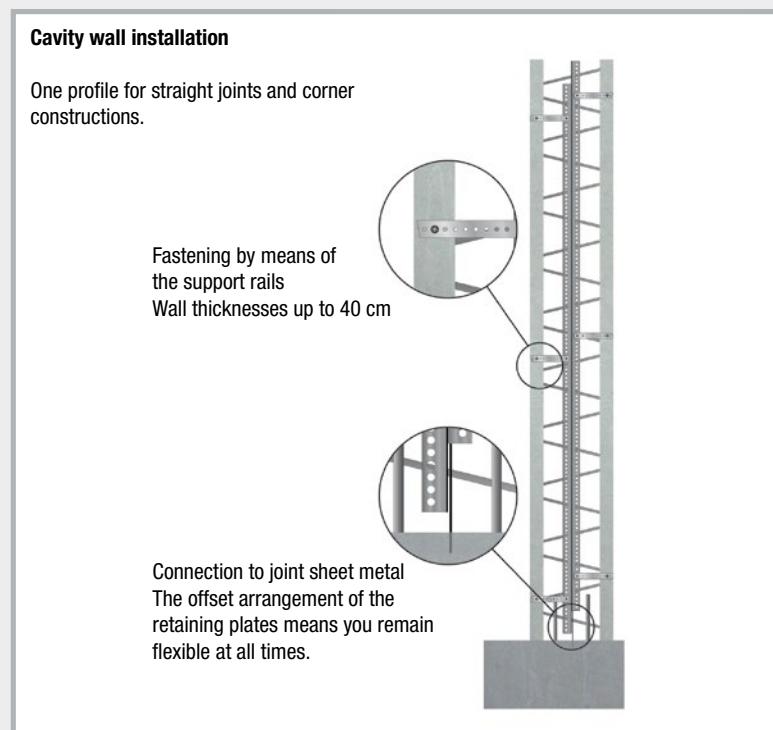
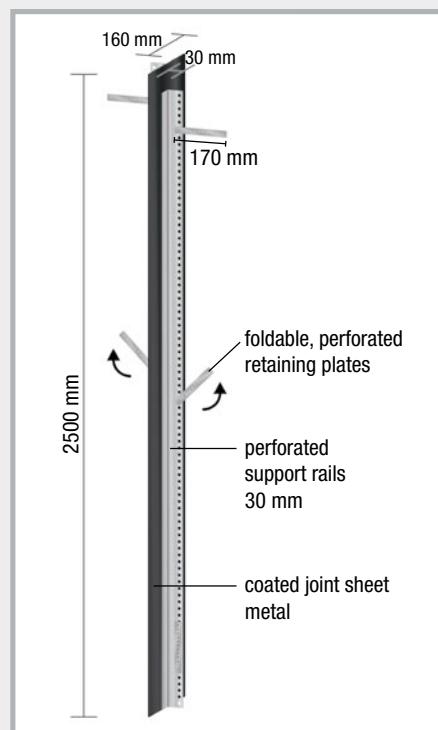


The SRF 125 Multi profile consists of a coated joint sheet metal element with perforated support rails attached to both sides and additional retaining plates. Depending on the requirements, the profile is fastened via the support rails or the perforated foldable retaining plates.

Type SRF 125 Multi in-situ concrete



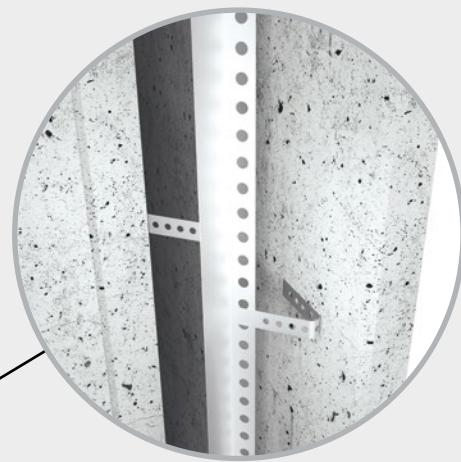
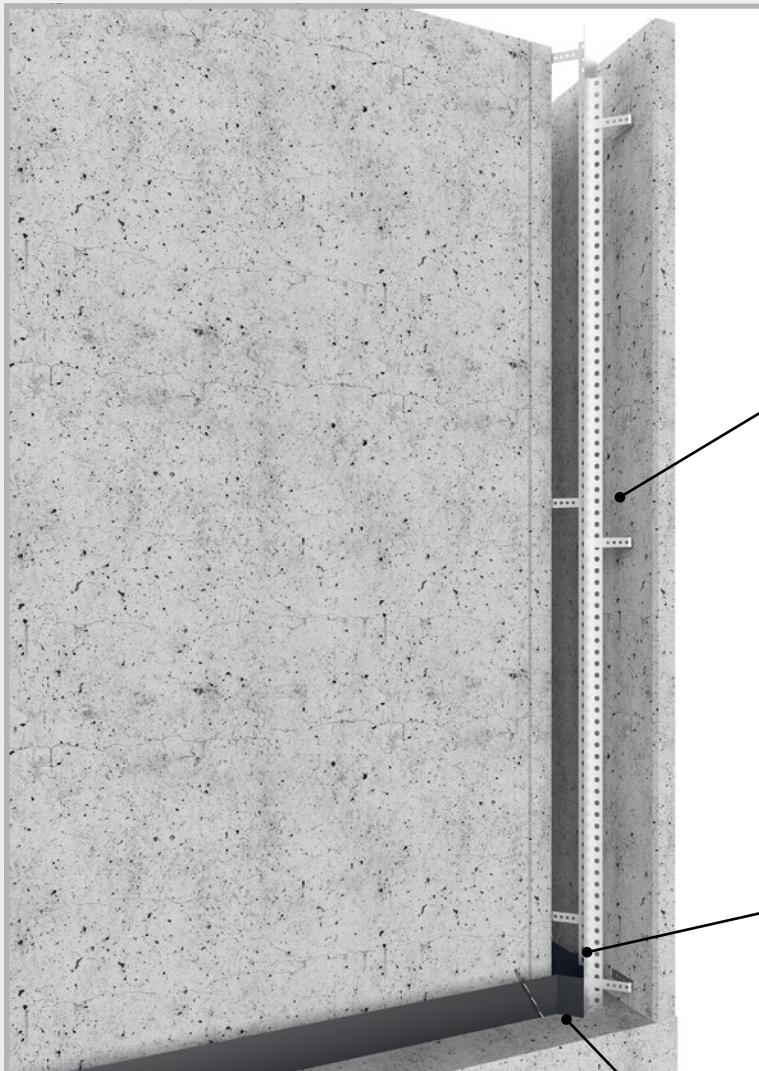
Type SRF 125 Multi cavity wall



Crack-inducing profile SRF 125 Multi cavity wall

Corner installation

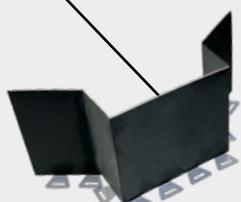
The cavity wall type crack-inducing profile SRF 125 Multi can also be used without any problems in the corner butt joint of cavity wall elements.



The retaining plates are angled in accordance with the course of the internal formwork and anchored in the concrete with nail plugs.

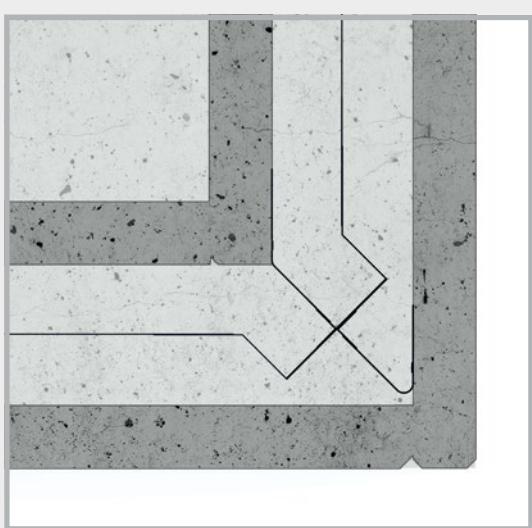


The profile is inserted vertically in the middle of the course of the crack between the external and internal shell of the cavity wall element.



At the bottom, the joint sheet metal is bonded with the slab-wall joint sheet metal with an overlap, and is secured with fixing clips.

In the corner area the course of the slab-wall joint sheet metal must guarantee that the crack-inducing profile can be introduced vertically to the course of the crack. For the corner formation, we recommend installing MASTER joint sheet metal Premium corner element FB (art. no. 070416)



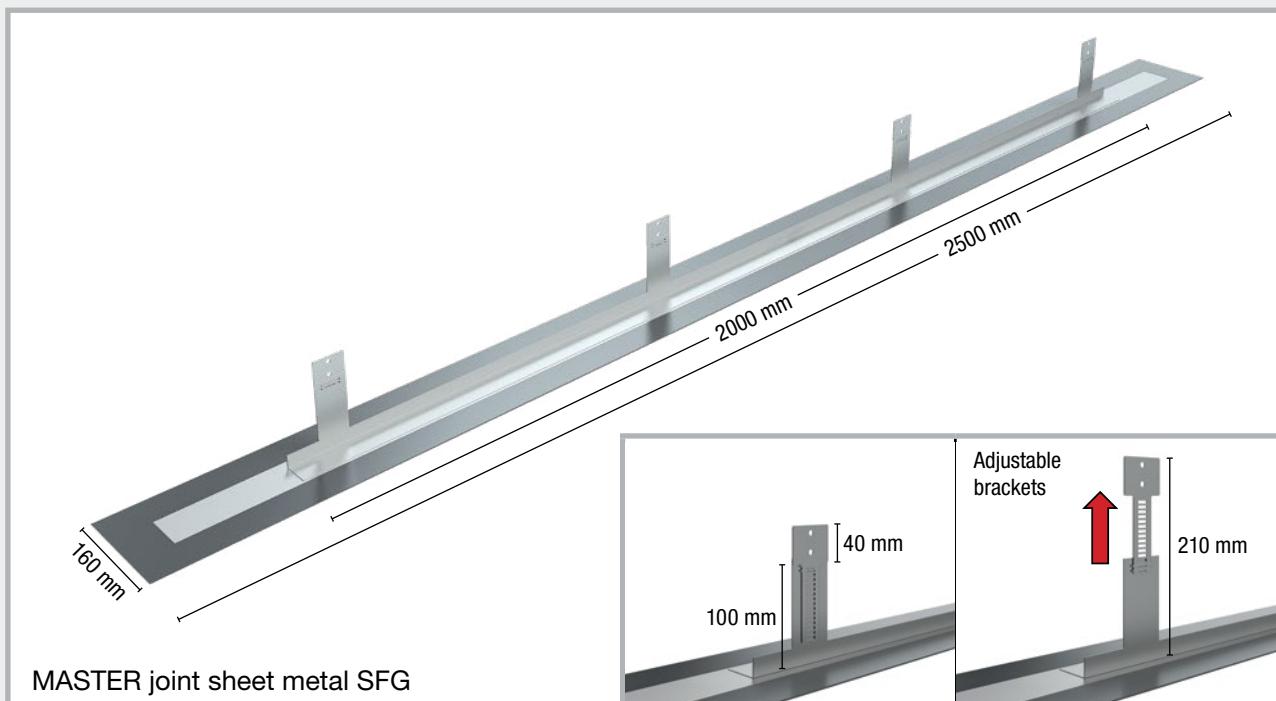
Corner installation possible up to wall thickness of 300 mm.



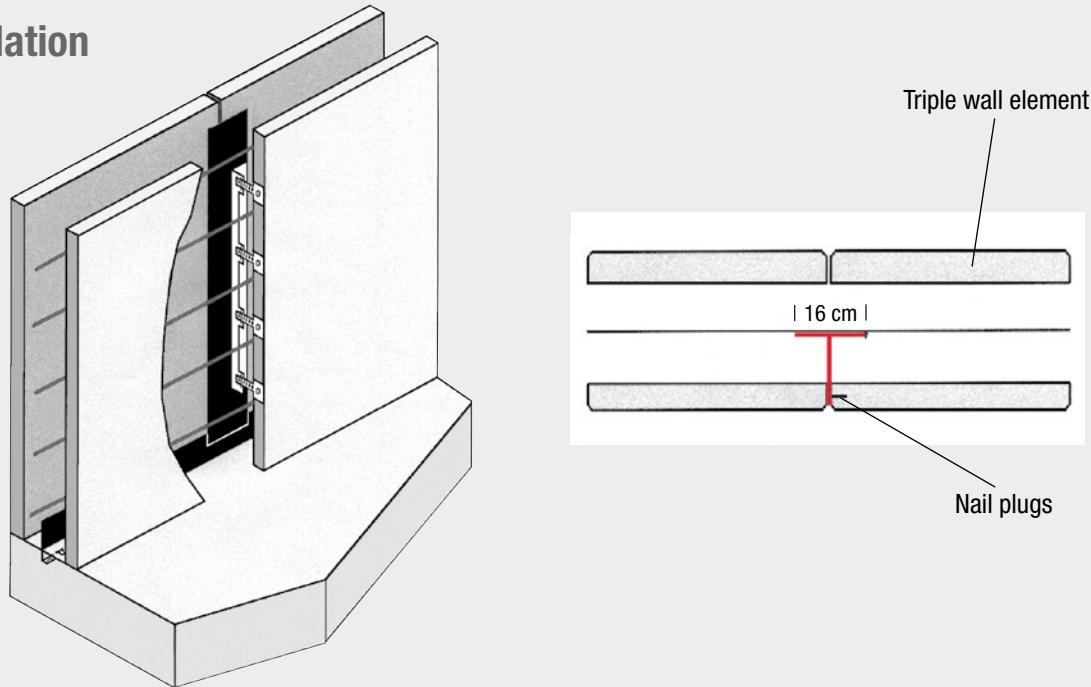
MASTER joint sheet metal SFG adjustable

(prefabricated crack-inducing element, straight) for straight butt joints

The profile consists of a fully coated joint sheet metal, which forms a watertight bond with the fresh concrete, and adjustable brackets.

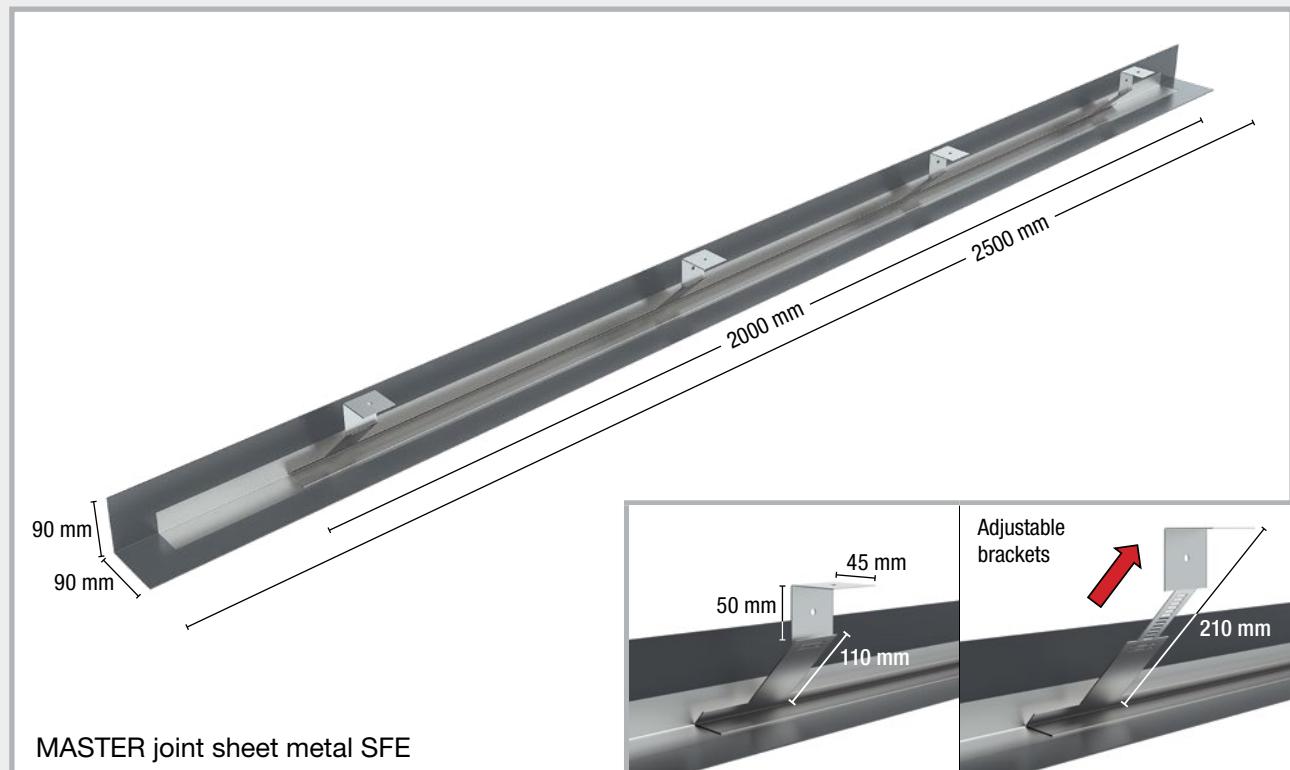


Installation

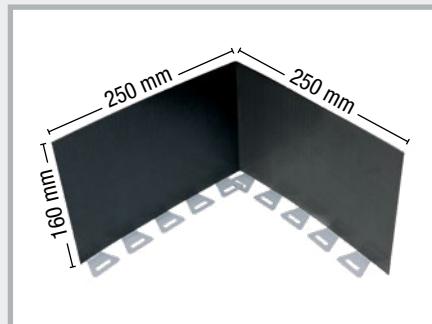
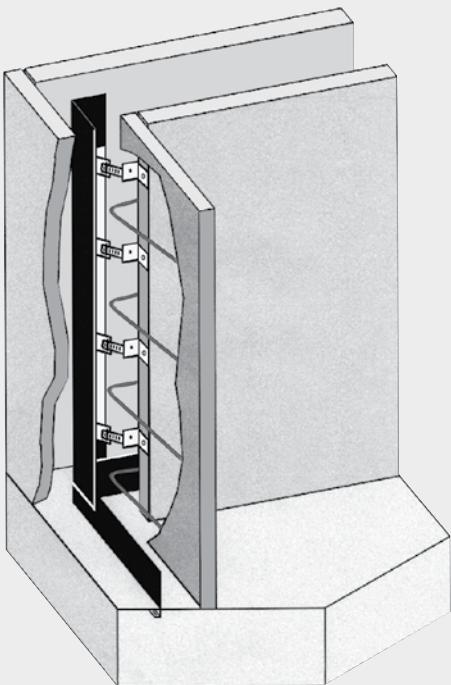


The elements supplied are completely prefabricated and are fastened to the internal formwork of the cavity wall elements using the supplied nail plugs. The lower part of the elements is bonded to the waterproofing profile in the foundation area.

MASTER joint sheet metal SFE adjustable



Installation of SFE



MASTER joint sheet metal Premium angle 90° for connection of SFE profile

The adjustable brackets always enable contact with the waterproofing elements in the foundation.

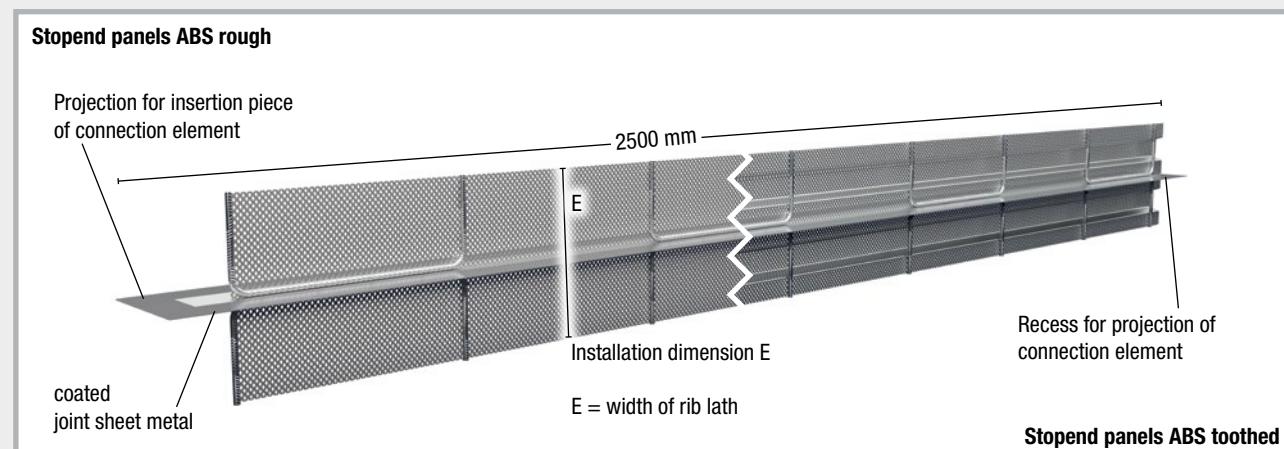
Formwork systems

ABS stopend panels rough/toothed

for construction joints exposed to pressurised water

The stopend panels ABS rough/toothed consist of a joint sheet metal with polymer coating on both sides in the edge area, which represents the horizontal sealing level when installed in the floor slab and the vertical sealing level when installed in the wall.

Perpendicular to the joint sheet metal, rib lath strips form the formwork level.



Waterproofing

- All-round polymer coating on both sides in the edge area
- Proof of usability: abP and ETA
- For joint opening up to 1.0 mm



European Technical Assessment (ETA):

Intended purpose: Sealing element for sealing construction joints in structures made of concrete with high water penetration resistance against pressurised and non-pressurised water.



General Building Supervisory Test Certificate (abP):

2 bar water pressure (20 m water column) with joint opening up to 1.0 mm



Application test:

6 bar water pressure (60 m water column) with joint opening up to 1.0 mm

The carrier and coating material has good to very good resistance to chemicals and other media.

Shuttering

The geometry and open passage of the rib lath strips create the following construction joint surfaces after concreting:

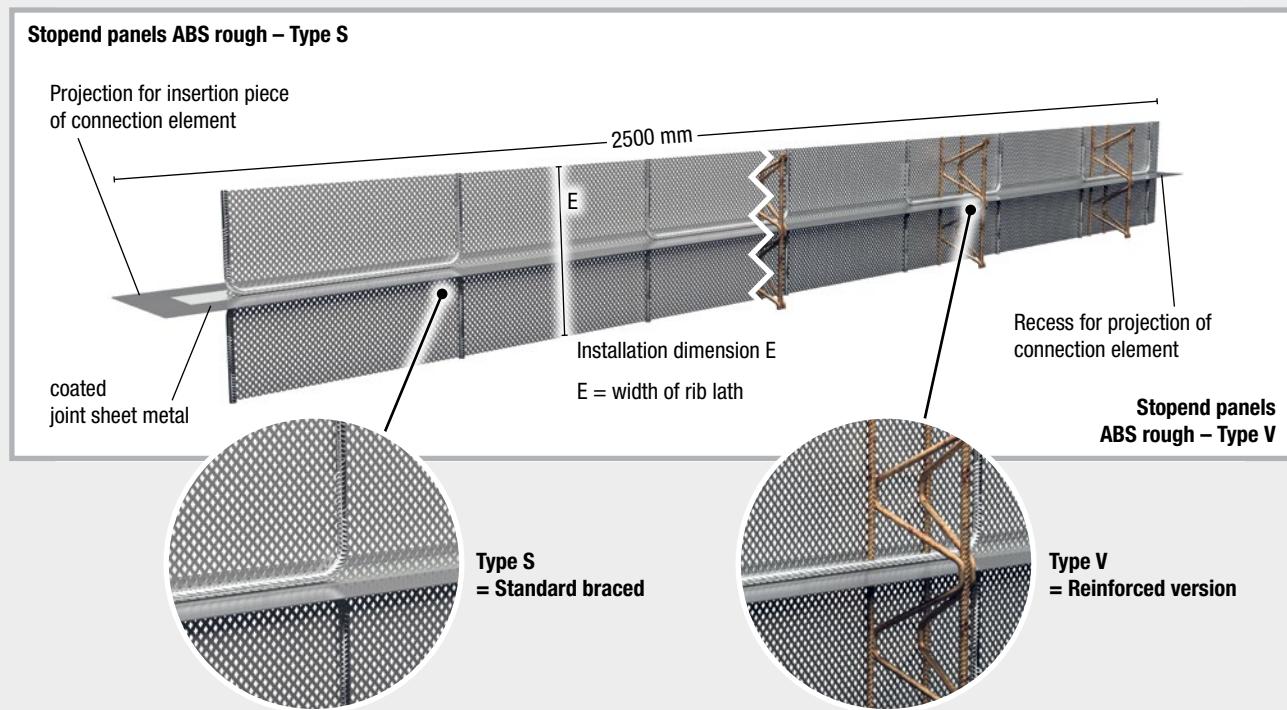
ABS rough: rough joint according to DIN EN 1992-1-1 NA (EC2)

ABS toothed: toothed joint according to DIN EN 1992-1-1 NA (EC2)

Stopend panels ABS rough

for construction joints exposed to pressurised water

- Pressure watertight
- Rough joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install matched to floor slabs/wall thicknesses
- Special versions with diagonal cut, height offset, recesses or crown cut are possible (see page 47).



Bracing options

- Type S Standard braced = U-brackets made of reinforcing steel stabilise the rib lath
- Type V Reinforced version = Increased stability due to additional lattice girders + mounting edge

Installation size

- Installation dimensions from 130 to 1000 mm available, sizes > 1000 mm on request
- Special dimensions possible on request

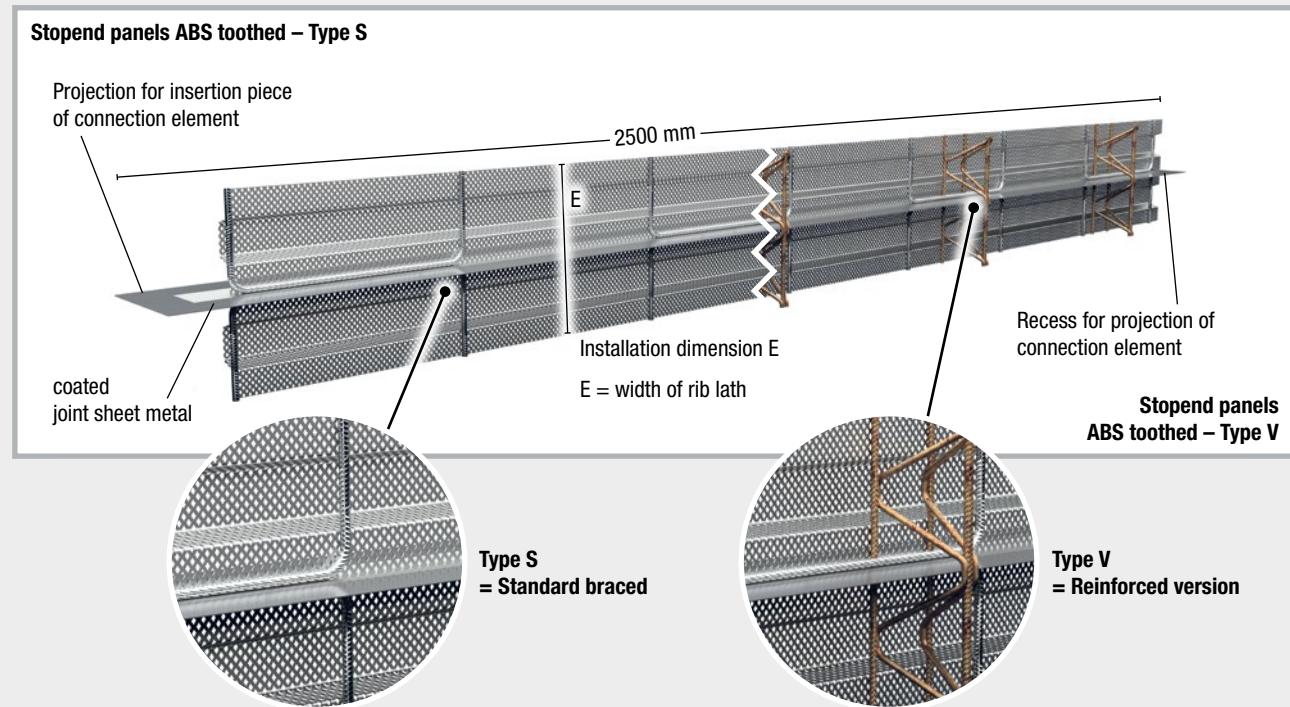
Installation instructions

- Place the ABS elements between the reinforcement layers and fix them with tie wire.
- Fold back the protective film of the sheet metal projection and in the area of the recess of the next element, push the projection into the recess, press the coating firmly together and secure with the supplied fixing clip.
- The elements remain in the concrete, i.e. no time-consuming formwork or stripping required.
- Remove the protective film in the concreting area before concreting.
- The back anchoring and securing the position of the elements against concrete pressure is carried out at the construction site.

Stopend panels ABS toothed

for construction joints exposed to pressurised water

- Pressure watertight
- Toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install matched to floor slabs/wall thicknesses
- Special versions with diagonal cut, height offset, recesses or crown cut are possible (see page 47).



Bracing options

- Type S Standard braced = U-brackets made of reinforcing steel stabilise the rib lath
- Type V Reinforced version = increased stability due to additional lattice girders + mounting edge

Installation size

- Installation dimensions from 160 to 1000 mm available, sizes > 1000 mm on request
- Special dimensions possible on request

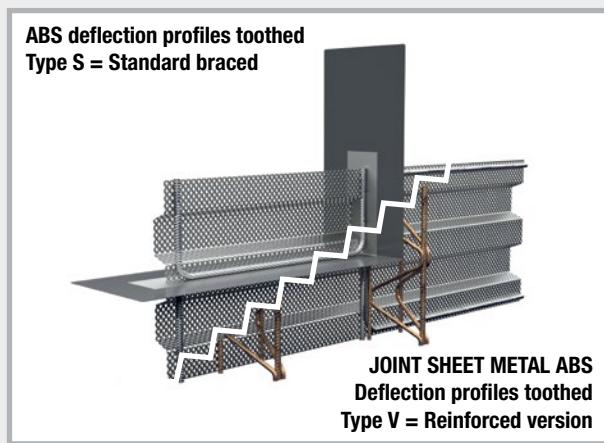
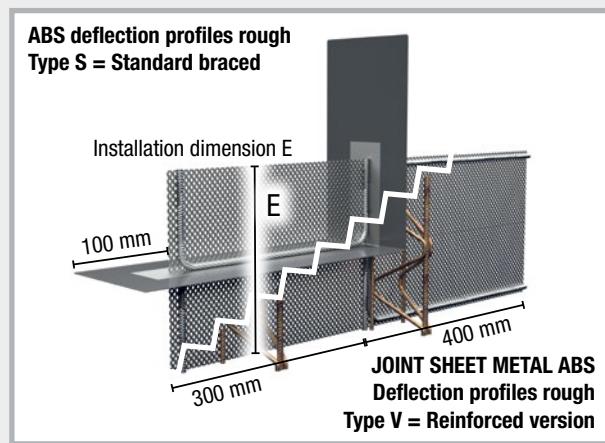
Installation instructions

- Place the ABS elements between the reinforcement layers and fix them with tie wire.
- Fold back the protective film of the sheet metal projection and in the area of the recess of the next element, push the projection into the recess, press the coating firmly together and secure with the supplied fixing clip.
- The elements remain in the concrete, i.e. no time-consuming formwork or stripping required.
- Remove the protective film in the concreting area before concreting.
- The back anchoring and securing the position of the elements against concrete pressure is carried out at the construction site.

ABS deflection profiles rough/toothed

for changing the direction of the sealing level from horizontal to vertical

- Pressure watertight
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab

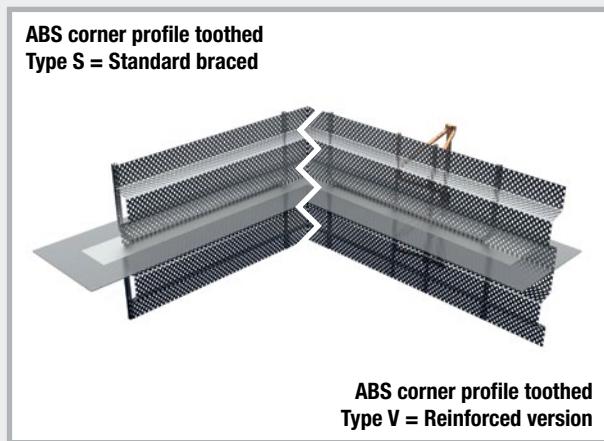
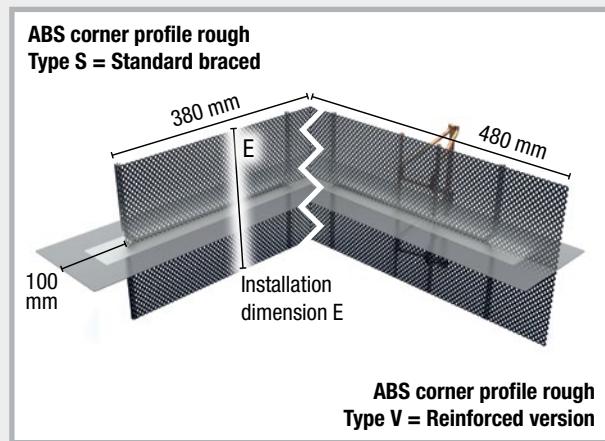


The ABS deflection profiles rough/toothed are used when switching from foundation formwork to wall formwork. Likewise, if the joint sheet metal from the foundation/wall transition is connected to the closed system of the sealing level in the area of the foundation formwork. The ABS deflection profiles rough/toothed are delivered ready-to-install and matched to the floor slab thickness. They are compatible with the stopend panels ABS rough/toothed.

ABS corner profile rough/toothed

for changing the direction of the sealing level in the floor slab

- Pressure watertight
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab

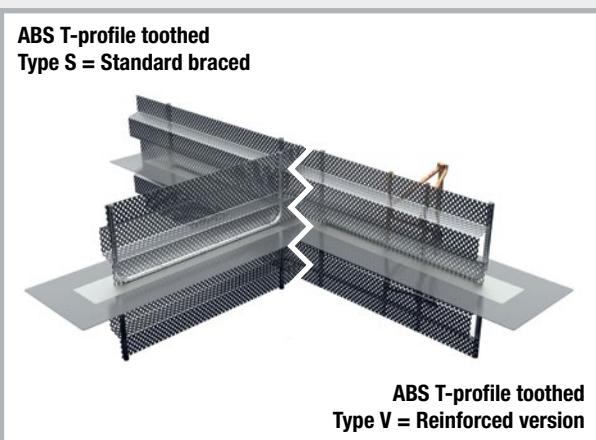
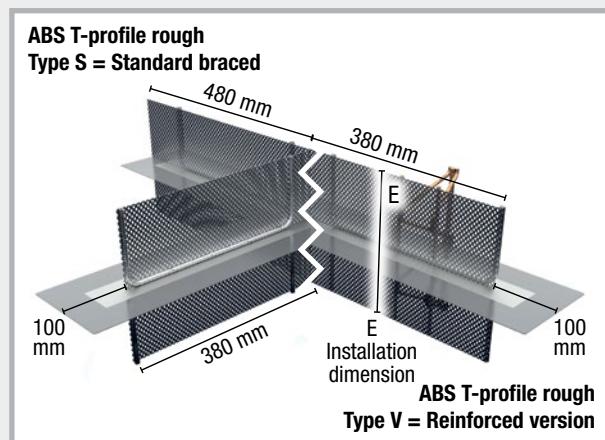


The ABS corner profile rough/toothed are used for corner formations of the floor slab formwork. The ABS corner profiles rough/toothed are delivered ready-to-install and matched to the floor slab thickness. They are compatible with the stopend panels ABS rough/toothed.

ABS T-profile rough/toothed

for T-joints of the stopen panels with retention of the sealing level in the floor slab

- Pressure watertight
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab

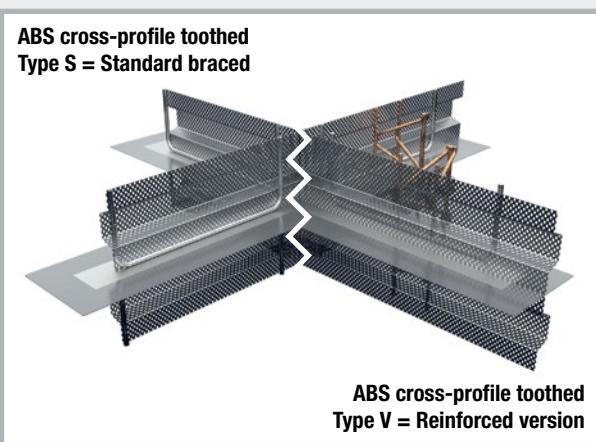
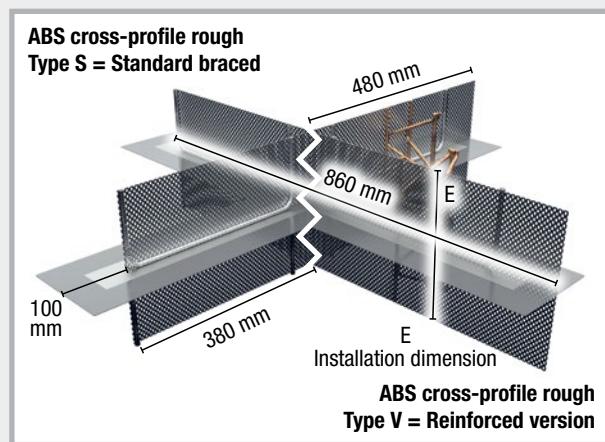


The ABS T-profile elements rough/toothed are used at one-sided joints of the floor slab formwork. The ABS T-profile elements rough/toothed are delivered ready-to-install and matched to the floor slab thickness. They are compatible with the stopen panels ABS rough/toothed.

ABS cross-profile rough/toothed

for cross joints of the stopen panels with retention of the sealing level in the floor slab

- Pressure watertight
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab



The ABS cross-profile elements rough/toothed are used at crossing points of the floor slab formwork. The ABS cross-profile elements rough/toothed are delivered ready-to-install and matched to the floor slab thickness. They are compatible with the stopen panels ABS rough/toothed.

ABS spacers

Our range includes three different types of ABS spacers, each with its own advantages.

The 'Fix' type is the classic among ABS spacers, specially made to your requirements.

In case of changes or if the dimensions have not yet been definitively defined, you will be better off with the Flex type (see Excel price list and website).

The latest design is the formwork comb type, available in two different heights for reinforcements of up to 90 mm. The formwork comb type combines all the advantages of the other two types in one product.

Of course, all three versions meet the requirements of the WU guideline for water-impermeable concrete constructions.

The following table with the traffic light system shows the advantages of the individual types in a simple and clear way.



Criterion	FIX type	FLEX type	formwork comb type
Flexibility	● red	● green	● green
Individual fabrication	● yellow	● yellow	● green
Cost at construction site	● green	● red	● green
Time required at construction site	● green	● red	● green
Exact specifications required at time of order	● red	● green	● green
Production lead time	● red	● yellow	● green
Total	good	better	best

Both the expanded metal and the formwork comb are firmly glued into the fibre cement square-edged profile at the factory. This makes installation significantly faster and break-proof.

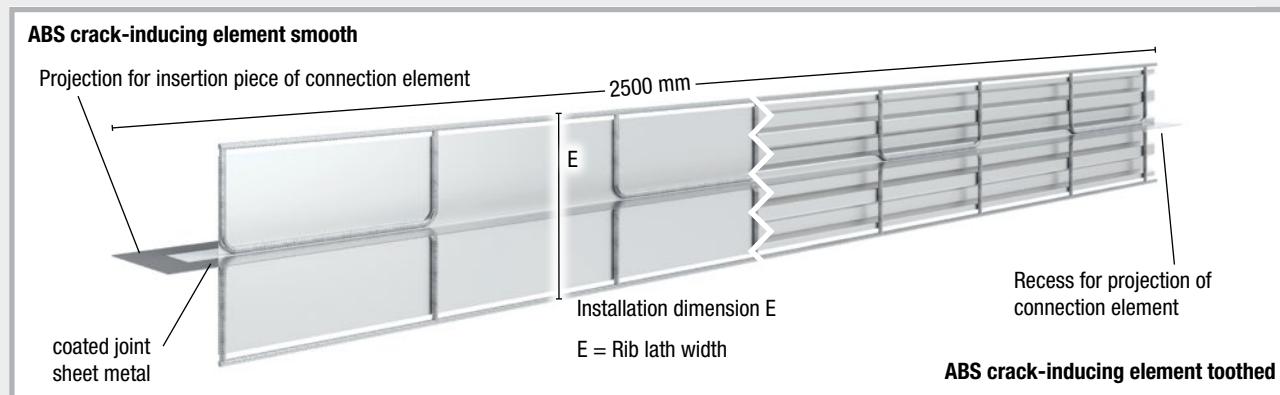
ABS crack-inducing elements

for forming controlled crack joints with exposure to pressurised water

In order to prevent unplanned and difficult-to-control cracking in concrete components, systematically including controlled crack joints is recommended. They can be produced using systematic sectional weakening (as per the German WU directive for Water-Impermeable Concrete Buildings $> \frac{1}{3}$ of the thickness of the constructional elements) of the concrete in conjunction with an adjustment of the reinforcement in the planned crack-inducing joint area. Our crack-inducing elements make for a practical variant of sectional weakening.

ABS crack-inducing element smooth/toothed

Coated joint sheet metal with integrated crack-inducing joint rail



The ABS crack-inducing elements are made of joint sheet metal which is coated with a polymer coating on both sides in the edge area. Crack-inducing rails with integrated mounting projection are fitted on both sides vertically to the joint sheet metal. The installation dimension depends on the thickness of the constructional elements. The crack-inducing rails are available as a smooth (galvanised flat sheet metal) or toothed (galvanised sheet metal with trapezoidal profile) variant.

Waterproofing

- All-round polymer coating on both sides in the edge area
- Proof of usability: abP and ETA
- For joint opening up to 1.0 mm



European Technical Assessment (ETA):

Intended purpose: Sealing element for sealing construction joints in structures made of concrete with high water penetration resistance against pressurised and non-pressurised water.



General Building Supervisory Test Certificate (abP):

2 bar water pressure (20 m water column) with joint opening up to 1.0 mm



The carrier and coating material has good to very good resistance to chemicals and other media.

Crack-inducing rails

The version of the crack-inducing rails used is critical for the resultant category of controlled crack in smooth or toothed joint. The geometry of the trapezoidal profile is based on the requirements for toothed joints according to DIN EN 1992-1-1 NA (EC2).

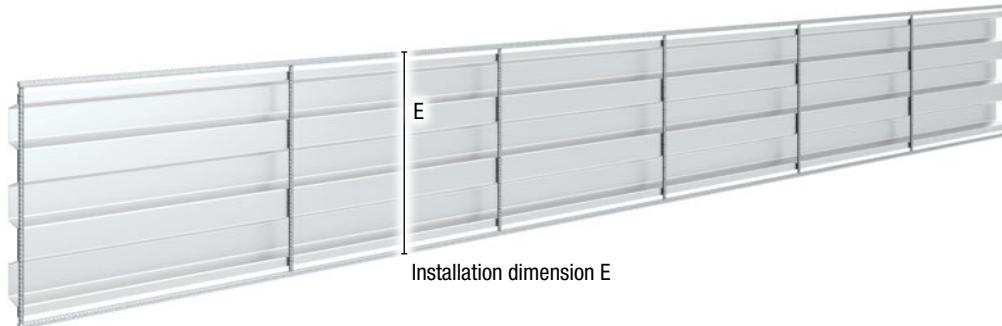
Stopend panels LinkFix/LinkForm

Lost formwork for construction joints in the toothed/rough joint category according to DIN EN 1992-1-1 NA (EC2), prefabricated ready for installation

LinkFix crack-inducing element

Crack-inducing profile for toothed joints

LinkFix crack-inducing element

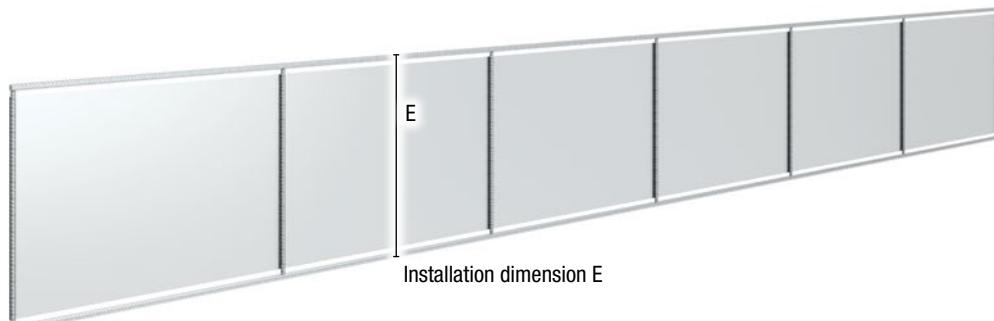


- LinkFix crack-inducing elements for systematic sectional weakening of concrete
- Trapezoidal profile design, geometry based on toothed joints according to DIN EN 1992-1-1 NA (EC2).
- Integrated mounting frame for fastening to the reinforcement
- Suitable for floor slabs and wall installation

LinkForm crack-inducing element

Crack-inducing profile for smooth joints

LinkForm crack-inducing element

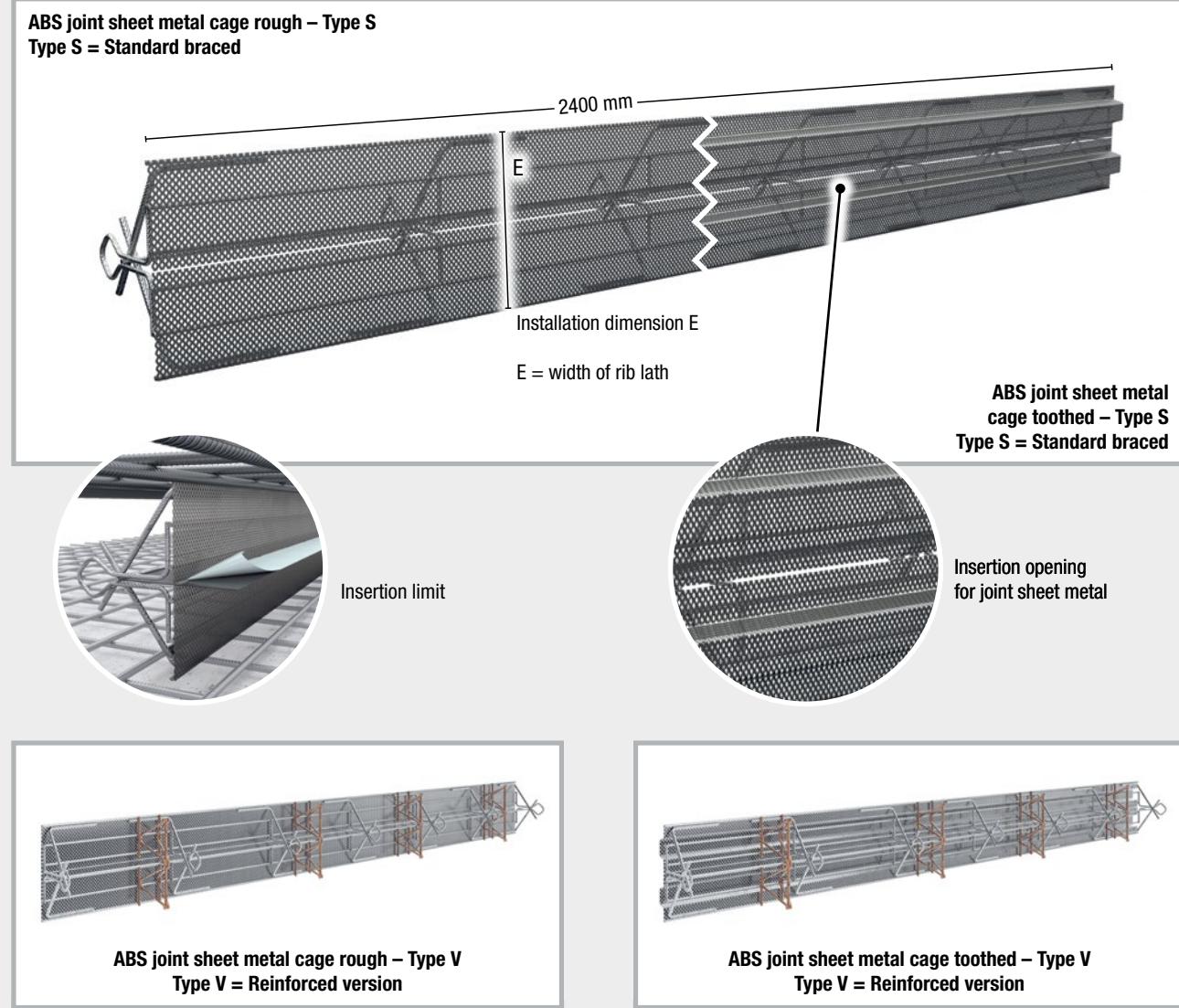


- LinkForm crack-inducing element for systematic sectional weakening of concrete
- Smooth version for straight crack course through the concrete component
- Integrated mounting frame for fastening to the reinforcement
- Suitable for floor slabs and wall installation

ABS joint sheet metal cage rough/toothed

Stopend panel for retrofitting joint sheet metal

- Insertion cage for coated joint sheet metals
- Insertion depth limited at 80 mm
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab



Installation instructions

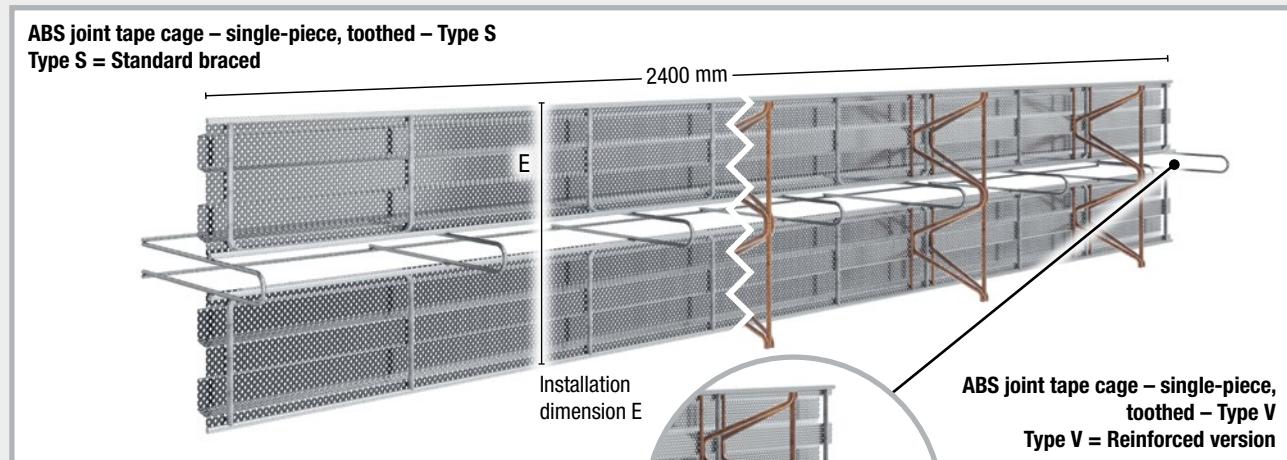
- Place the ABS joint sheet metal cage elements between the reinforcement layers and fix them with tie wire.
- Peel off the protective foil of the joint sheet metal on the sheet side of the first concreting section and push the joint sheet metal into the insertion cage.
- Overlap the sheet ends of the joint sheet metals to be inserted according to the manufacturer's specifications.
- The ABS joint sheet metal cage elements remain in the concrete, i.e. no time-consuming formwork or stripping required.
- The back anchoring and securing the position of the elements against concrete pressure is carried out at the construction site.

Suitable joint sheet metal for retrofitting: you will find the VB joint sheet metal on pages 26 – 27.

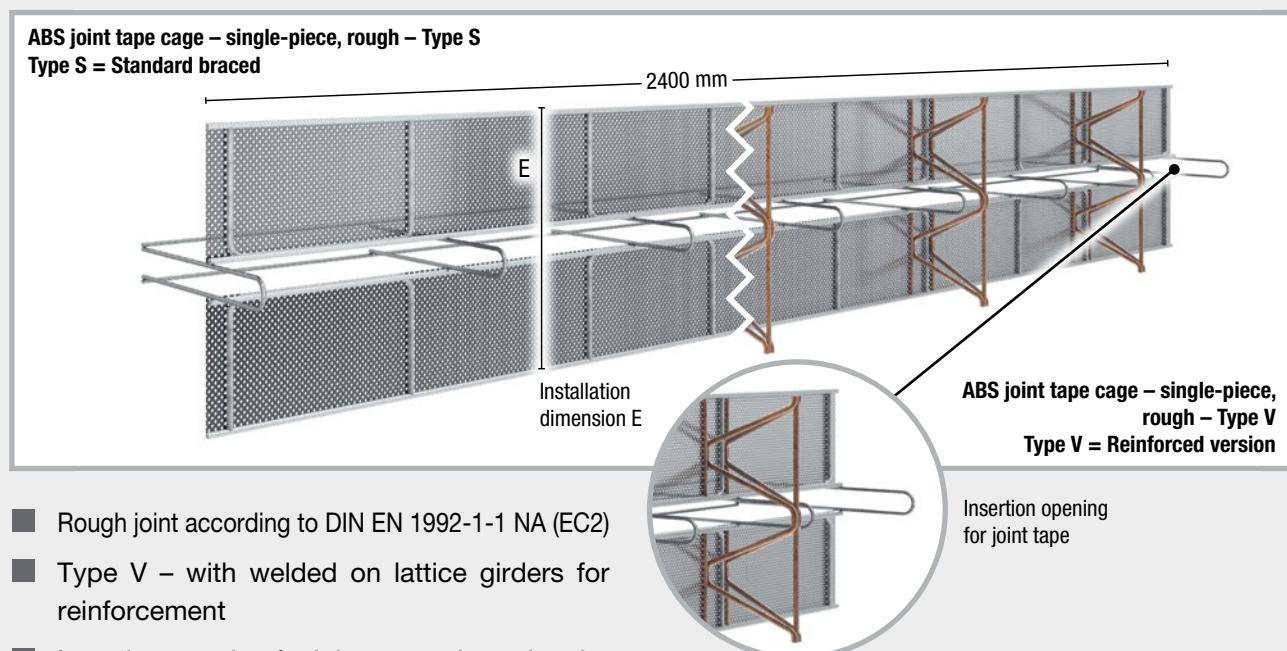
ABS joint tape cage – single-piece, toothed/rough

Stopend panel for retrofitting joint tapes

- Insertion cage for internal construction joint tapes 190, 240 and 320 mm
- Rough/toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Ready-to-install, matched to the thickness of the floor slab
- Fastened to cage with joint tape clamp



- Toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Type V – with welded on lattice girders for reinforcement
- Insertion opening for joint tape adapted to the joint tape width



- Rough joint according to DIN EN 1992-1-1 NA (EC2)
- Type V – with welded on lattice girders for reinforcement
- Insertion opening for joint tape adapted to the joint tape width

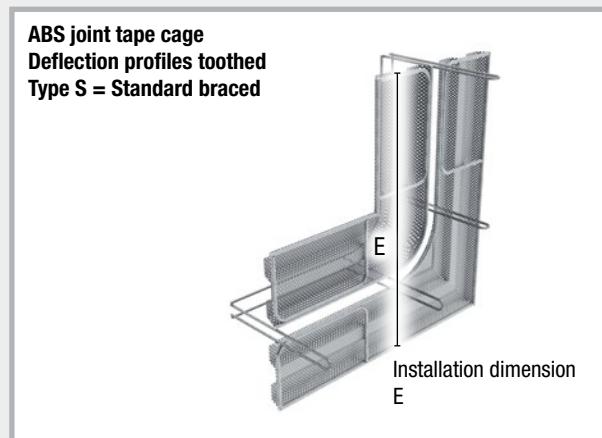
ABS joint tape cage deflection profile

Stopend panel for direction changes of joint tapes

The ABS joint tape cage deflection profiles allow for direction changes from horizontal to vertical joint courses. The most common case is the transition from floor slabs to walls.

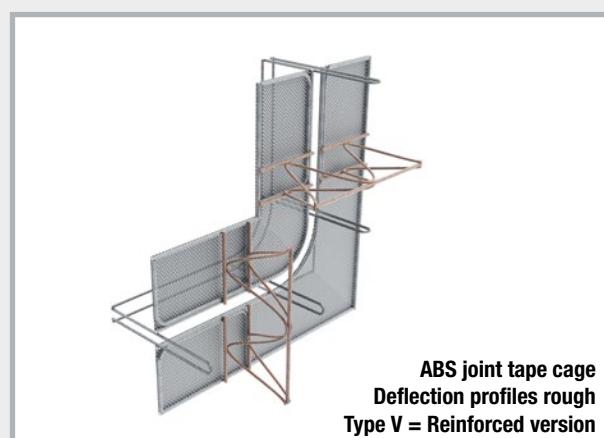
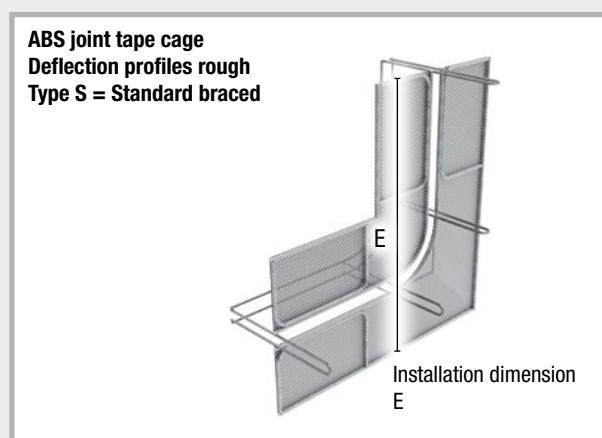
- Defined bending radius of 150 mm according to DIN 18197 for internal construction joint tapes
- Compatible with ABS joint tape cage

ABS joint tape cage deflection profile toothed



- Toothed joint according to DIN EN 1992-1-1 NA (EC2)
- Type V – with welded on lattice girders for reinforcement

ABS joint tape cage deflection profile rough



- Rough joint according to DIN EN 1992-1-1 NA (EC2)
- Type V – with welded on lattice girders for reinforcement



Joint sheet metal/joint tape connector

Product description

The joint sheet metal/joint tape connector establishes a reliable pressure watertight connection between PVC joint tapes and coated joint sheet metals.

A joint sheet metal/joint tape connector consists of 2 connecting elements.



Installation



The ribs must be removed from the joint tape in the areas where the connectors are mounted.



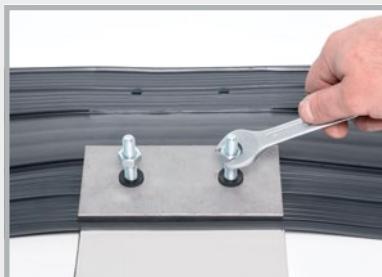
The positions of the bore holes are marked.



The holes are drilled.



The connectors and joint tape are assembled.



The screws are tightened.



Pull off the foil, affix the connection plates and secure with the fixing clips.

MASTER-Connect



Connector for joint sheet metals and joint tapes

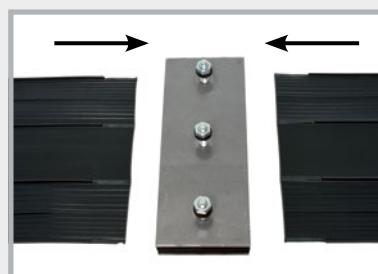
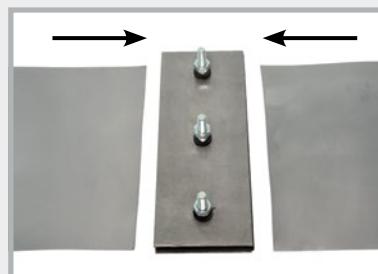
MASTER-Connect connectors are manufactured in 2 versions. MASTER-Connect Type F for joint sheet metals and Type B for joint tapes.

- No boreholes
- Supplied ready for installation
- No welding
- Completely pressure watertight connection

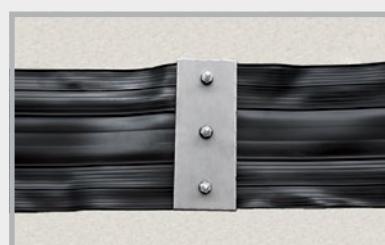


Technology

1. The connectors are supplied preassembled.
2. The joint sheet metal elements or joint tapes are pushed in between the seals on the left and right.
3. The ribs are removed at the insertion section of the joint tapes to ensure this section is as smooth as possible.
4. Following insertion the screws are tightened to 8 Nm.
5. The connection is completely pressure watertight.



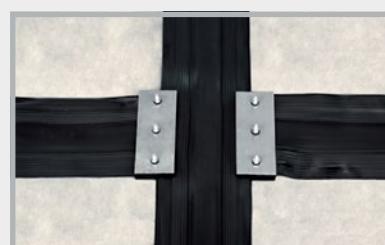
Installation options for joint tape and joint sheet metal



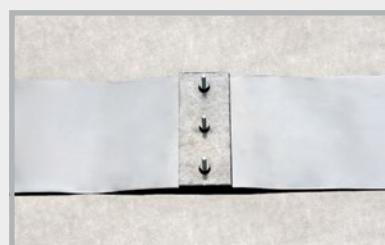
Butt joint



T piece



Junction



Butt joint



T piece



Junction

Technical data and detailed installation instructions can be found at www.master tec.eu

INJECTION HOSES CONSTRUCTION CHEMISTRY



**MASTERTUBE
YELLOW
injection hose system**
pages 100 – 103



**MASTERTUBE
RED/YELLOW
injection hose system**
pages 100 – 103



PROTECT resin system
+ Universal concrete adhesive
+ Injection packers
pages 104 – 106



LIDOL concrete release agent
in MULTI and BIO quality
pages 107 – 108



MASTERTUBE injection hose systems

Injection hoses

Art.Gr.
300

Art. no.	Description	PU	Secondary packaging	Weight	Price/m
030400	MASTERTUBE YELLOW round, size: 6/12 mm, PVC injection hose	1 roll of 100 m	1 pallet = 48 rolls	10.25 kg per roll	€7.20
030050	MASTERTUBE RED/YELLOW round, size: 6/12 mm, red/yellow Injection hose with woven jacket	1 roll of 100 m	1 pallet = 48 rolls	10.35 kg per roll	€8.00

- Very high-pressure water test
- For injection with polyurethane resin
- For multiple injection with acrylate
- Hose sections up to 15 m with polyurethane resin

The MASTERTUBE YELLOW injection hose has fastening marks at intervals of 15 cm.



Art. no. 030400



Art. no. 030050

MASTERTUBE YELLOW installation set

Art.Gr.
301

Art. no.	Description	PU	Weight/set	Price/set
030055	MASTERTUBE YELLOW installation set 10 m MASTERTUBE YELLOW injection hose 100 plastic fastening clips, type B 2 fastening packers (1 x red, 1 x white), including 2 nipples 2 hose connectors	1 carton = 1 set	1.60 kg	€82.00

MASTERTUBE RED/YELLOW installation set

Art.Gr.
301

Art. no.	Description	PU	Weight/set	Price/set
030052	MASTERTUBE RED/YELLOW installation set 40 m MASTERTUBE RED/YELLOW injection hose 20 fastening packers, including nipples 300 plastic fastening clips, type B 10 hose connectors 1 roll of filament tape	1 carton = 1 set	6.10 kg	€390.00

Art. no. 030055



Art. no. 030052



Injection hose and accessories

Art.Gr.
302

Art. no.	Description	PU	Secondary packaging	Weight per pc.	Price per pc.	
030060	Fastening packer, without nipple , for fastening of injection hose to the formwork, Colour of packer: black, 10 red plugs, 10 white plugs, for resin injection	1 bag of 20 pcs.	1 carton = 25 bags	0.50 kg per bag	€4.70	
030063	Nipples for fastening packers	1 bag of 20 pcs.		0.10 kg per bag	€0.85	
030362	Plastic foam for fastening packer Diameter 35 mm, Thickness 20 mm, self-adhesive, 10 pcs. white, 10 pcs. anthracite	1 bag of 20 pcs.		0.04 kg per bag	€0.65	
030065	Fixing spider for fixing the fastening packer to the reinforcement	1 pc.		0.08 kg	€10.15	
030075	Plastic fastening clip type A to be pressed into the fresh concrete, distance between clips: 15 cm	1 bag of 100 pcs.	1 sack = 25 bags	0.29 kg per bag	€25.90 per 100 pcs.	
030070	Plastic fastening clip type B for pressing into the fresh concrete or into Ø 8 mm bore holes, distance between clips: 15 cm	1 bag of 100 pcs.	1 sack = 25 bags	0.29 kg per bag	€23.60 per 100 pcs.	
030080	Metal clip with pre-fitted nail for all common nailguns, for firing and nailing, distance between clips: 15 cm	1 carton of 100 pcs.		1.75 kg per carton	€0.85	
030081	Metal clip without nail	1 carton of 100 pcs.		1.40 kg per carton	€0.35	
030083	Nail plug 5 x 40 mm borehole Ø 5 mm	1 carton of 200 pcs.		0.63 kg per carton	€10.40 per 100 pcs.	
030072	Fastening grid for MASTERTUBE 1 carton = 25 m (25 grids of 1 m)	1 carton		1.65 kg per carton	€2.60 per m	
030082	MASTERTUBE joint sheet metal clamp	1 bag of 100 pcs.		0.60 kg per bag	€50.00 per 100 pcs.	

HYDROPHILIC
WATERSTOPPS

2

JOINT SHEET METALS

INJECTION HOSES
CONSTRUCTION CHEMISTRY

4

SERVICE DUCTS

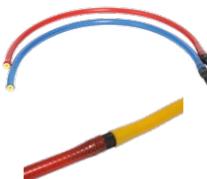
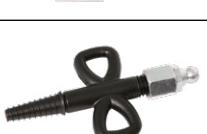
5

LIGHTNING
PROTECTION

6

FORMWORK
ACCESSORIES

Injection hose and accessories

Art. no.	Description	PU	Weight per pc.	Price per pc.	
030100	Hose connector for hose extension and connection of oddments	1 bag of 10 pcs.	0.03 kg per bag	€2.20	
030102 030104	Ventilation hose Fabric hose blue-transparent round, size: 5/11 mm red-transparent round, size 5/11 mm	1 roll of 50 m	5.50 kg 5.50 kg per roll	€3.20/m €3.20/m	
030112	Injection end pieces including sealing plug and hose connector, length 50 cm	1 bundle of 10 pcs.	0.60 kg per bundle	€7.35	
030114	blue-transparent round 5/11 mm	1 bundle of 10 pcs.	0.60 kg per bundle	€7.35	
030096	Sealing plugs for injection end pieces and ventilation hose	1 bag of 20 pcs.	0.01 kg per bag	€0.65	
030350	Storage box for ventilation hose	1 bag of 10 pcs.	0.73 kg per bag	€6.00	
030140	Hand-lever press 500 ccm for resin injection	1 pc.	1.05 kg	€38.00	
030150	Reinforced hose L 300 mm incl. gripping head	1 pc.	0.09 kg	€17.25	
030160	Gripping head	1 pc.	0.03 kg	€7.40	
030165	Manometer 400 bar with T piece incl. connecting tube and adapter	1 pc.	0.28 kg	€91.00	
030130	Injection packer, including nipple for injection via ventilation hose or injection hose	1 bag of 10 pcs.	0.13 kg per bag	€5.60	
030090	Filament tape roll width: 25 mm, roll length: 50 m to safeguard the hose ends	1 carton of 36 rolls	0.22 kg per roll	€6.90 per roll	

MASTERTUBE injection hose systems

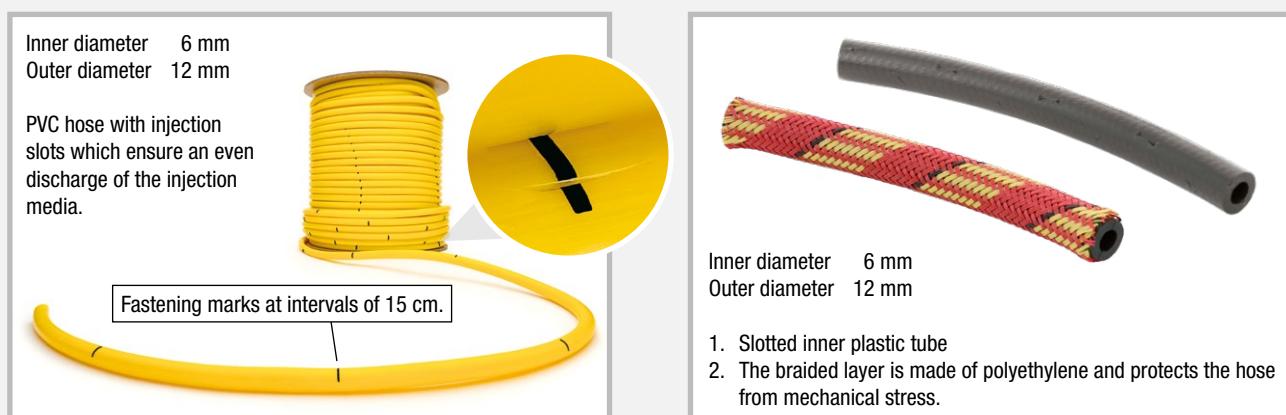


Two systems with 100% reliability

The MASTERTUBE YELLOW and MASTERTUBE RED/YELLOW injection hoses make construction joints watertight. The form and structure of the hose profiles ensure a particularly secure and even filling of shrinkage gaps and damaged spots.



Both systems are also available as an installation set.



	MASTERTUBE YELLOW	MASTERTUBE RED/YELLOW
Very high water pressure tests	50 m water column	50 m water column
For injection with polyurethane resin	tested	tested
For multiple injection with acrylate	tested	tested
Grouting circuits up to 15 m	tested	tested
Even discharge of injection material	tested	tested
No sintering during concreting	tested	tested
Suitable for zones with frequently varying water levels	tested	tested
All-weather installation	-10°C to + 60°C	-10°C to + 60°C
Extremely straightforward installation	Used on building sites for more than 10 years	Used on building sites for more than 20 years
Accessories	Comprehensive system	Comprehensive system



PROTECT resin system

Injection resins, adhesives and cleaning agents for injection of injection hoses and injection packers and pressure water-tight bonding of fibre cement plugs.

Universal concrete adhesive

PROTECT Easy 1K



Single-component polymer-based concrete adhesive

For water-tight bonding of all fibre cement distance tubes and for the bonding of split FASO lining pipes.

Processing takes approx. 20 min. at +23°C;

Resistant to all normal uncontaminated groundwater.

**Art.Gr.
308**

Art. no.	Description	PU	Secondary packaging	Weight/aluminium bag	Price
040030	PROTECT Easy 1K in aluminium bag 800 g	1 aluminium bag	1 carton = 20 aluminium bags	0.80 kg	€20.00 per aluminium bag €25.00/kg

PROTECT BK 2K



Solvent-free epoxy-based concrete adhesive

For water-impermeable bonding of all fibre cement distance tubes, for non-positive connection of concrete components and for the bonding of split FASO lining pipes.

Processing time approx. 60 min. at +20°C

Resistances of PROTECT BK once cured:

Diluted acids, mineral oil, lubricants and fuels, salt water, waste water, large number of alkalis and solvents, approved for use in contact with drinking water



**Art.Gr.
308**

Art. no.	Description	PU	Secondary packaging	Weight	Price/kg
040100	PROTECT BK 2K for pressure water-tight sealing of fibre cement distance tubes.	1 kg combination can: (0.5 kg component A + 0.5 kg component B)	1 carton = 10 combination cans 1 pallet = 28 cartons	1.20 kg per can	€26.00

PROTECT Clean

Cleaning agent

For cleaning of polyurethane and epoxy resin prior to curing.



**Art.Gr.
303**

Art. no.	Description	PU	Secondary packaging	Weight	Price/l
040045	PROTECT Clean	1 can 1 l	1 carton = 12 cans	0.96 kg/can	€13.30
040040	PROTECT Clean	1 canister 10 l	1 canister	9.45 kg/canister	€11.00

NEW! MC-Injekt 2300 flow

Polyurethane resin for hose and crack injection

Permanently sealing, moisture-reactive injection resin;
CE marking;
Processing time up to 100 minutes at +20°C;



Art.Gr.
303

Art. no.	Description	PU	Secondary packaging	Weight	Price/l
040015	MC-Injekt 2300 flow polyurethane resin	1 l combination can: (0.5 l component A + 0.5 l component B)	1 carton = 6 cans	1.30 kg per can	€28.00

Application

All resins must be very well homogenised during mixing.

Example MC-Injekt 2300 flow:

**Installation instructions, technical data and data sheets can be found on our website:
www.mastertec.eu**

Resins and adhesives cannot be shipped at temperatures below +5°C.



Processing materials: Protective gloves, safety goggles, cordless screwdriver, suitable mixer.



Pour the entire contents of hardener component A into the combination can of component B.



Stir the mixture for at least 2 minutes.



Transfer the mixed material into a clean, dust-free container for further processing, either by machine or manually.

MC-Injekt 1264 compact

Epoxy resin

Non-positive filling of cracks and joints;
Injection into injection hoses;
Suitable for dry and damp substructures;
Processing time approx. 25 min. at +20°C;



Art.Gr.
303

Art. no.	Description	PU	Secondary packaging	Weight	Price/l
040020	MC-Injekt 1264 compact epoxy resin	1 l combination can: (800 ml component A + 200 ml component B)	1 carton = 6 cans	1.35 kg per can	€33.50

MC-Injekt 2133

Single-component, fast-foaming polyurethane-based foam resin

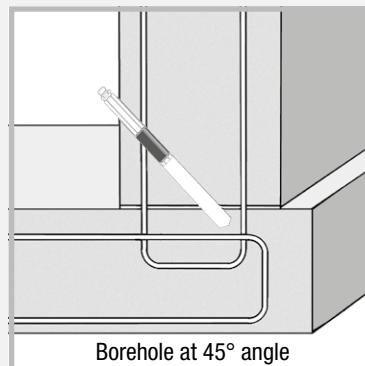
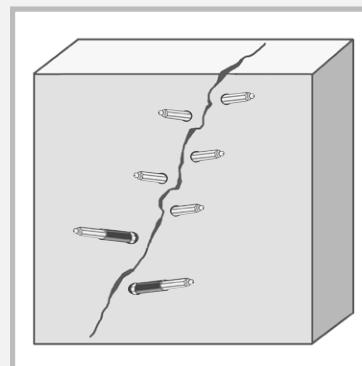
Immediately stops the inflow of water; rapid expansion with high increase in volume;
Reaction time upon contact with water approx. 10-15 seconds;



Art.Gr.
303

Art. no.	Description	PU	Secondary packaging	Weight	Price/l
040050	MC-Injekt 2133 foam resin	1 l can	1 carton = 6 cans	1.30 kg per can	€35.00

Injection packers / surface packers



Art. no.	Screw injection packer including nipple / size	Drill bit Ø	PU	Weight per carton	Price per pc.
030185	10/70 mm	10 mm	1 carton of 100 pcs.	1.90 kg	€2.25
030187	10/100 mm	10 mm	1 carton of 100 pcs.	2.70 kg	€2.35
030183	13/80 mm	14 mm	1 carton of 100 pcs.	2.90 kg	€2.40
030180	13/100 mm	14 mm	1 carton of 100 pcs.	4.65 kg	€2.45
030181	13/170 mm	14 mm	1 carton of 100 pcs.	7.60 kg	€4.00
030182	13/250 mm	14 mm	1 carton of 100 pcs.	10.80 kg	€7.00

One day site packer

Art.Gr. 304

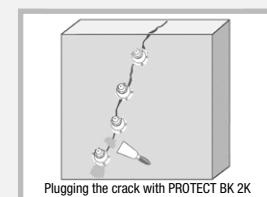


The packer shaft can be unscrewed immediately after injection.

Art. no.	One day site packer including nipple / size	Drill bit Ø	PU	Weight per carton	Price per pc.
030188	10/110 mm	10 mm	1 carton of 100 pcs.	4.00 kg	€3.15
030189	13/115 mm	14 mm	1 carton of 100 pcs.	4.60 kg	€3.90

Surface packer

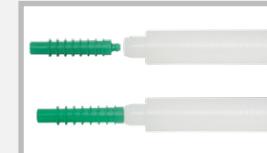
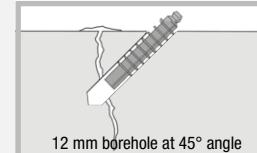
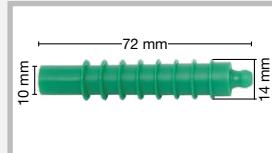
Art.Gr. 304



Art. no.	Description	PU	Weight	Price/pc.
030200	Plastic surface packers, washer diameter 5 cm	1 bag of 100 pcs.	1.70 kg per bag	€4.00

Plastic injector

Art.Gr. 304



Art. no.	Description	PU	Weight	Price/pc.
030210	Plastic injector with non-return ball	1 bag of 200 pcs.	0.80 kg per bag	€0.95
030215	Impact stud	1 pc.	0.07 kg/pc.	€9.90

LIDOL concrete release agent

Art.Gr.
305HYDROPHILIC
WATERSTOPPS

2

JOINT SHEET METALS

3

INJECTION HOSES
CONSTRUCTION CHEMISTRY

4

SERVICE DUCTS

5

LIGHTNING
PROTECTION

6

FORMWORK
ACCESSORIES

Art. no.	Description	PU	Secondary packaging	Weight	Price	
040310	LIDOL MULTI Universal release agent for all common types of formwork	1 canister 25 l	1 pallet = 24 canisters	23.4 kg per canister	€4.90/l	
040320	LIDOL MULTI 1 drum 200 l with integrated faucet		1 pallet = 2 drums	184.6 kg per drum	€4.70/l	
040330	LIDOL BIO Universal release agent for all common types of formwork Rapidly biodegradable Environmental label "Blue Angel"	1 canister 25 l	1 pallet = 24 canisters	23.4 kg per canister	€7.30/l	

LIDOL MULTI

LIDOL MULTI is an environmentally sound universal release agent

The application of LIDOL MULTI to the formwork prevents the formwork from coming into contact with the concrete.

The formwork can therefore be easily stripped.

Applications:

- For all common formwork types
- With fair-faced concrete
- When coating concrete surfaces with plaster, stucco or similar material, e.g. wallpaper, paint, ceramic
- Does not contain corrosion protection additives, corrosion protection is provided by mineral oils



Environmental aspects:

- Water hazard class 1 = low hazard to water
- Not subject to mandatory labelling
- Flashpoint > +120°C
- Neutral odour

Application:

LIDOL MULTI is not sensitive to frost and can be used without problems in all weather conditions. The release agent can be applied by spraying, brushing or rolling. The most economical application method is using a compression sprayer.

LIDOL BIO

LIDOL BIO is an environmentally sound and highly biodegradable universal release agent

Special award:

Due to its high environmental compatibility, LIDOL BIO was awarded the environmental label "Blue Angel" by RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V (German Institute for Quality Assurance and Labelling).



Applications:

- In water protection areas and zones with environmental stipulations
- For all common formwork types
- With fair-faced concrete
- When coating concrete surfaces with plaster, stucco or similar material, e.g. wallpaper, paint, ceramic



Environmental aspects:

- Water hazard class 1 = low hazard to water, highly biodegradable
- Not subject to mandatory labelling
- Flashpoint > +120°C
- Neutral odour

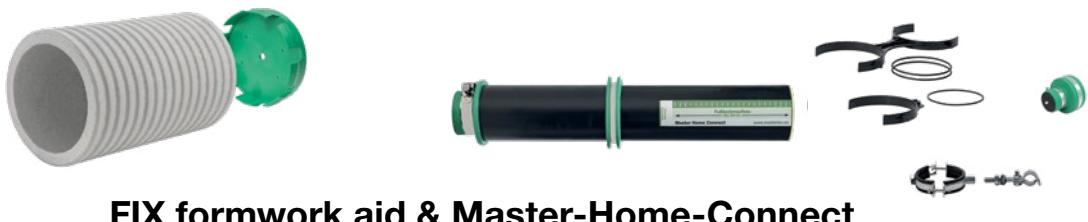


Application:

LIDOL BIO is not sensitive to frost and can be used without problems in all weather conditions. The release agent can be applied by spraying, brushing or rolling. The most economical application method is using a compression sprayer.

Types of formwork	Yield per 1 litre of LIDOL BIO	Yield per 1 litre of LIDOL MULTI
formwork panels	approx. 75 m ²	approx. 80 m ²
planed timber surface	approx. 35 m ²	approx. 40 m ²
unplaned timber surface	approx. 25 m ²	approx. 30 m ²

PRESSURE WATER-TIGHT SERVICE DUCTS



FIX formwork aid & Master-Home-Connect

pages 110 – 119



Lining pipes & accessories

pages 120 – 129



Gasket inserts, modular seals, FLEX 2000

pages 130 – 139



RONDO sealing collars

pages 140 – 144



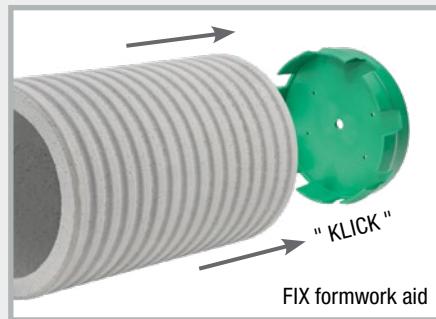
Pipe bushings and ground drains

pages 145 – 152

FIX formwork aid

Fastening system for lining pipes and fixed earthing terminals at the construction site and at the precast plant

For nailing to wooden and plastic formworks and for fastening to steel formworks using FIX Magnet



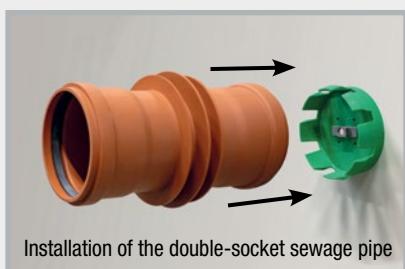
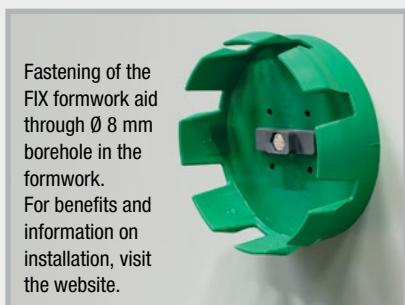
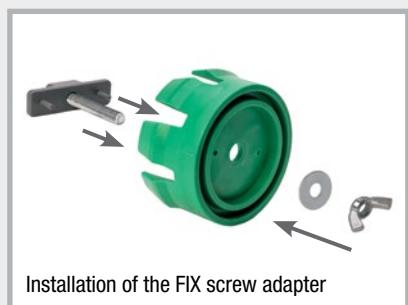
All parts of the FIX formwork range are reusable

Art.Gr.
420

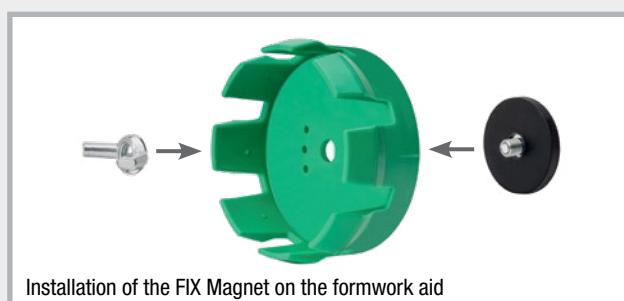
Art. no.	Description	PU	Weight per pc.	Price per pc.	
091410	FIX Magnet for formwork aid Power Magnet for all FIX formwork aids, incl. screw and wing nut	25 pcs.	0.14 kg	€32.80	
090804	FIX EFP formwork aid for fixed earthing terminals M10/12 and M12, cone height 11 mm	25 pcs.	0.03 kg	€5.00	
090806	FIX 80 formwork aid for lining pipes ID 79-84 mm	25 pcs.	0.10 kg	€6.70	
090810	FIX 100 formwork aid for lining pipes ID 99-104 mm Sewage pipe DN 110	25 pcs.	0.15 kg	€6.90	
090814	FIX 110 formwork aid for lining pipes ID 109-114 mm for the socket of KG and KG 2000 sewage pipes DN 110	25 pcs.	0.16 kg	€7.80	
090816	FIX 125 formwork aid for lining pipes ID 124-129 mm for the socket of KG and KG 2000 sewage pipes DN 125	25 pcs.	0.20 kg	€8.60	
090818	FIX 150 formwork aid for lining pipes ID 149-154 mm Sewage pipe DN 160	25 pcs.	0.25 kg	€10.50	
090822	FIX 200 formwork aid for lining pipes ID 199-206 mm	25 pcs.	0.38 kg	€14.20	
090824	FIX screw adapter incl. screw set The screw adapter allows the FIX formwork aid to be fastened to the formwork shell. In the process, the screw connection is on the outside of the formwork, making stripping the formwork after concreting much easier.	1 set	0.04 kg	€6.00 per set	
090826	FIX removal aid The removal aid makes pulling out the formwork aid easier	1 pc.	0.08 kg	€16.70	

Installation of the FIX formwork aid for all common lining pipes

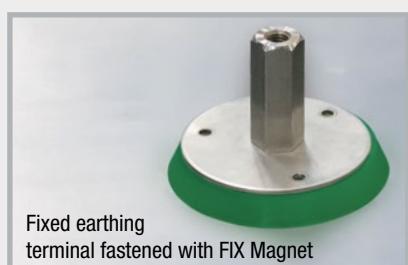
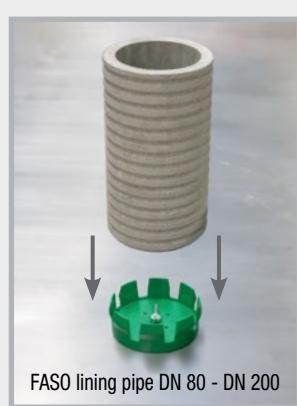
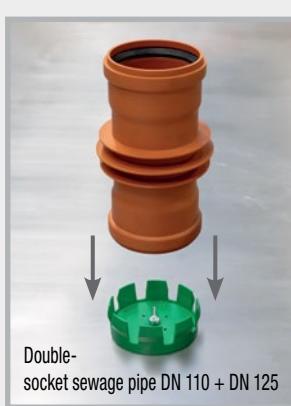
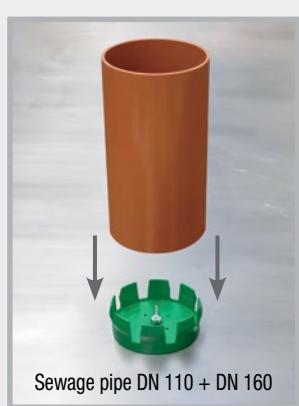
Wooden or plastic formwork



Steel formwork

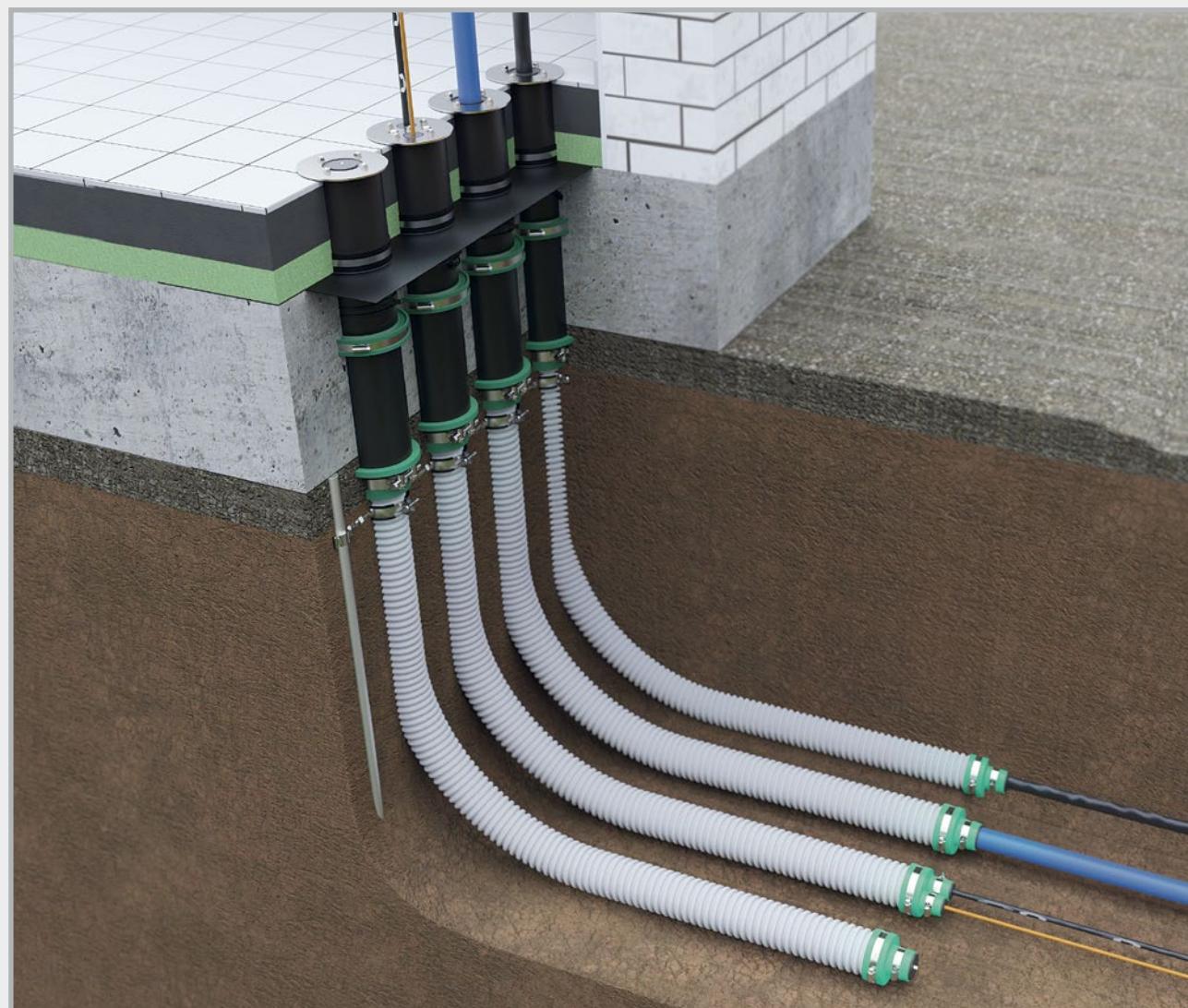


Position the FIX formwork aid using the FIX Magnet and simply push on the desired lining pipe.



Master-Home-Connect (MHC)

Service duct system for house connections
for electricity, water and telecommunications



Certified service duct system according to DVGW VP 601

03/2007 chapter 4.5

Impermeability to gas and water of the installed service duct



Each individual component has been tested additionally for
pressure water-tightness



Test for impermeability to radon when installed

Master-Home-Connect single-utility Solo

for on-site cable conduit, for floor slab installation

Art.Gr.
410

Art. no.	Description	PU	Weight per set	Price per set
080034	MHC single-utility Solo The MHC single-utility Solo set comprises: <ul style="list-style-type: none"> – 0.6 m lining pipe (with protective cover for the duration of construction) incl. sealing collar, with factory-installed Connector and installation scale – MHC Solo gasket insert – Solid ground stake Ø 20 mm – Dual-thread clamp and connecting clamp – 1 set each of MHC Solo and Duo spacers – Solo cable conduit end cap with Multi insert 	1 set	7.42 kg	€127.00



Master-Home-Connect single-utility

incl. cable conduit Ø 75 mm, for floor slab installation

Art.Gr.
410

Art. no.	Description	PU	Weight per set	Price per set
	The basic equipment of MHC single-utility comprises: <ul style="list-style-type: none"> – 0.6 m lining pipe (with protective cover for the duration of construction) incl. sealing collar, with factory-installed Connector and installation scale – MHC Solo gasket insert – Solid ground stake Ø 20 mm – Dual-thread clamp and connecting clamp – 1 set each of MHC Solo and Duo spacers – Solo cable conduit end cap with Multi insert 			
080035	MHC single-utility 3 m The MHC single-utility 3 m set contains the above basic equipment and in addition <ul style="list-style-type: none"> – 3.0 m cable conduit Ø 75 mm (external) 	1 set	9.14 kg	€162.00
080036	NEW! MHC single-utility 6 m The MHC single-utility 6 m set contains the above basic equipment and in addition <ul style="list-style-type: none"> – 6.0 m cable conduit Ø 75 mm (external) 	1 set	10.61 kg	€194.00
080037	MHC single-utility 10 m The MHC single-utility 10 m set contains the above basic equipment and in addition <ul style="list-style-type: none"> – 10.0 m cable conduit Ø 75 mm (external) 	1 set	13.13 kg	€244.00
080014	NEW! MHC single-utility 15 m The MHC single-utility 15 m set contains the above basic equipment and in addition <ul style="list-style-type: none"> – 15.0 m cable conduit Ø 75 mm (external) 	1 set	16.44 kg	€260.00

MHC multi-utility triple sets

for floor slab installation

**Art.Gr.
410**

Art. no.	Description	PU	Weight per set	Price per set
	<p>The basic equipment of MHC multi-utility triple set comprises:</p> <ul style="list-style-type: none"> – 3 x 0.6 m lining pipes (with protective cover for the duration of construction) incl. sealing collar, with factory-installed Connector and installation scale – 2 x MHC Solo gasket inserts – 1 x MHC Multi gasket insert for telecommunications line – 2 x solid ground stakes Ø 20 mm and connection clamps – 3 x dual-thread clamps – 2 sets MHC Duo spacers – 2 x Solo cable conduit end caps with Multi insert – 1 x Duo cable conduit end cap with Multi insert 			
080038	MHC multi-utility triple/3 metre The MHC multi-utility triple/3 metre set contains the above basic equipment and in addition: – 3 x 3.0 m cable conduits outside Ø 75 mm	1 set	25.34 kg	€470.00
NEW! 080039	MHC multi-utility triple/6 metre The MHC multi-utility triple/6 metre set contains the above basic equipment and in addition: – 3 x 6.0 m cable conduits outside Ø 75 mm	1 set	29.75 kg	€555.00
080040	MHC multi-utility triple/10 metre The MHC multi-utility triple/10 metre set contains the above basic equipment and in addition: – 3 x 10.0 m cable conduits outside Ø 75 mm	1 set	37.31 kg	€673.00
NEW! 080015	MHC multi-utility triple/15 metre The MHC multi-utility triple/15 metre set contains the above basic equipment and in addition: – 3 x 15.0 m cable conduits outside Ø 75 mm	1 set	44.06 kg	€820.00

MHC multi-utility quadruple sets

for floor slab installation

**Art.Gr.
410**

Art. no.	Description	PU	Weight per set	Price per set
	<p>The basic equipment of MHC multi-utility quadruple set comprises:</p> <ul style="list-style-type: none"> – 4 x 0.6 m lining pipes (with protective cover for the duration of construction) incl. sealing collar, with factory-installed Connector and installation scale – 3 x MHC Solo gasket inserts – 1 x MHC Multi gasket insert for telecommunications line – 2 x solid ground stakes Ø 20 mm and connection clamps – 4 x dual-thread clamps – 3 sets MHC Duo spacers – 3 x Solo cable conduit end caps with Multi insert – 1 x Duo cable conduit end cap with Multi insert 			
080041	MHC multi-utility quadruple/3 metre The MHC multi-utility quadruple/3 metre set contains the above basic equipment and in addition: – 4 x 3.0 m cable conduits outside Ø 75 mm	1 set	30.48 kg	€605.00
NEW! 080042	MHC multi-utility quadruple/6 metre The MHC multi-utility quadruple/6 metre set contains the above basic equipment and in addition: – 4 x 6.0 m cable conduits outside Ø 75 mm	1 set	36.36 kg	€720.00
080043	MHC multi-utility quadruple/10 metre The MHC multi-utility quadruple/10 metre set contains the above basic equipment and in addition: – 4 x 10.0 m cable conduits outside Ø 75 mm	1 set	46.44 kg	€878.00
NEW! 080016	MHC multi-utility quadruple/15 metre The MHC multi-utility quadruple/15 metre set contains the above basic equipment and in addition: – 4 x 15.0 m cable conduits outside Ø 75 mm	1 set	55.44 kg	€1075.00

MHC single-utility – wall

for wall installation

Art.Gr.
410

Art. no.	Description	PU	Weight per set	Price per set
080044	MHC single-utility – wall – Solo The MHC single-utility – wall – Solo set comprises: – 0.365 m lining pipe (with protective cover for the duration of construction) incl. sealing collar and length scale – Connector for connecting the cable conduit – MHC Solo gasket insert – 1 set each of MHC Solo and Duo spacers – Solo cable conduit end cap with Multi insert	1 set	3.78 kg	€106.00
080045	MHC single-utility – wall – Multi The MHC single-utility – wall – Multi set comprises: – 0.365 m lining pipe (with protective cover for the duration of construction) incl. sealing collar and length scale – Connector for connecting the cable conduit – MHC Multi gasket insert for telecommunications line – 1 set each of MHC Solo and Duo spacers – Duo cable conduit end cap with Multi insert	1 set	3.80 kg	€127.70

Master-Home-Connect accessories

Art.Gr.
410

Art. no.	Description	PU	Weight per pc.	Price per pc.	
080052	MHC Solo end cap (Set) 1 media line: 4-40 mm	1 set	0.25 kg per set	€26.10 per set	
080053	MHC Duo end cap (Set) up to 2 media lines: each 4-25 mm	1 set	0.25 kg per set	€35.40 per set	
080047	MHC Multi gasket insert up to 4 media lines: 2 x 4-25 mm + 2 x 10 mm	1 pc.	0.81 kg	€61.70	
080046	MHC Solo gasket insert 1 media line: 4-40 mm	1 pc.	0.79 kg	€43.40	
080050	MHC Solo spacer	1 set	0.02 kg per set	€4.30 per set	
080051	MHC Duo spacer	1 set	0.04 kg per set	€4.80 per set	
080012	Cable conduit Ø 75 mm	1 m	0.53 kg per m	€9.00 per m	
080033	Foil flange for MHC , quadruple, size: 800 x 250 mm, suitable for on-site adjustment	1 pc.	0.47 kg	€34.30	

Master-Home-Connect (MHC)

Individual components



Lining pipe

Plastic lining pipe with length of 0.6 m and pre-installed RONDO Base sealing collar, Connector connection seal and length scale. The sealing collar seals off the transition between the concrete and lining pipe so that it is impermeable to pressurised water and gas.

The Connector connection seals connect the cable conduits DN 75 mm so that they are pressure water-tight.



Cable conduit

Pressure-resistant protective conduit DN 75 mm for electrical, water and telecommunications lines laid in the soil.

Alongside its excellent pressure resistance, the protective conduit which is classified as N750 according to DIN EN 61386-24, provides perfect insertion properties thanks to the sliding, green inner layer.



Fastening material

Dual-thread clamps for positioning multiple cable conduits with defined spacing in a row or as a package.

Connection clamp for connection of the dual-thread clamps to the ground stake.

Solid ground stake for positioning the dual-thread clamps in the ground.

MHC Solo and Duo spacers for connection and plumb alignment of the lining pipes.



MHC end caps

Rubber end seal for waterproofing the ends of the cable conduit at the transition point.

The Multi insert allows adaptation to the media line being inserted.

MHC Solo end cap (set): 1 media line 4-40 mm

MHC Duo end cap (set): up to 2 media lines, each 4-25 mm



MHC gasket inserts

Gasket insert for waterproofing the transition of the lining pipe to the inserted media line.

The gasket insert can be adapted to all common medium pipes thanks to the Multi inserts which can be adjusted to the medium pipe.

MHC Solo gasket insert:

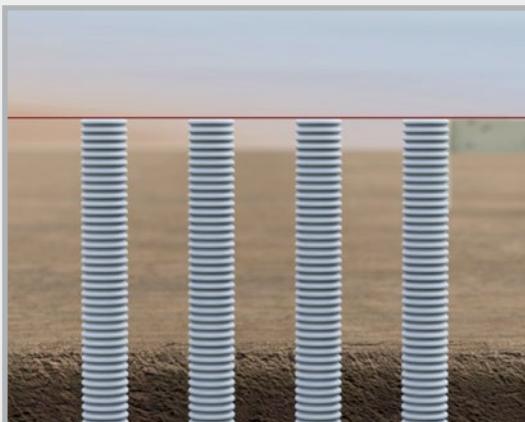
1 media line 4-40 mm

MHC Multi gasket insert:

up to 4 media lines 2 x 4-25 mm + 2 x 10 mm

The 130 mm pressure plate covers the transition area between the lining pipe and floor covering with its projection.

Master-Home-Connect (MHC) Installation



Laying the cable conduit

The cable conduits are directed from the transition point up to the desired insertion point under the floor slab, and up to at least the height of the top edge of the floor slab with a bending radius > 350 mm.



Fastening the cable conduit

The cable conduits are connected with the spacing in a row defined for the installation using the dual-thread clamps. The connection clamp is used to establish a connection between the dual-thread clamps and the ground stake on both sides, which is driven into the soil beforehand. The height position of the connection clamp is positioned at least 400 mm underneath the top edge of the floor slab, and secured with screws.



Sealing the cable conduit/backfilling

The ends of the cable conduit are sealed with the supplied construction protective covers. The trench for the cable conduits can then be filled with suitable filling material and waterproofed in layers.



Installation of the MHC lining pipe

The cable conduits are then cut 360 mm underneath the top edge of the floor slab. The end of the MHC lining pipe, which is equipped with the Connector, is pushed over the end of the cable conduit, and secured by tightening the metal clamp.

The plumb position of the lining pipe is not yet relevant at this point.

Master-Home-Connect (MHC) Installation



Connection of the MHC lining pipes

The MHC lining pipes are connected to each other using Duo spacers. For this purpose, the pipes are clipped into the spacers and secured using the supplied rubber fastening straps.

The spacers are positioned at the height of the upper layer of reinforcement.



Floor slab substrate

The substrate for the floor slab can subsequently be prepared in the form of gravel or grit bedding.

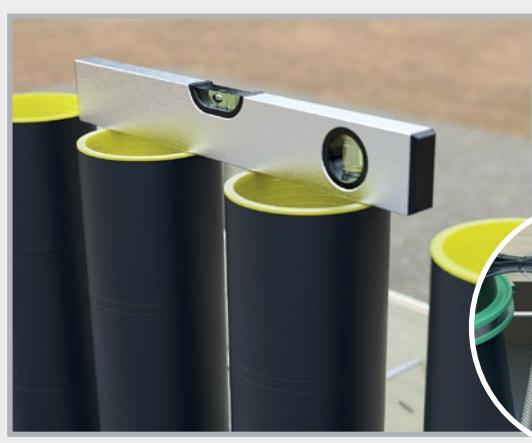
When concreting a blinding layer, the MHC service duct must be shuttered. As a result, the elastic bearing remains in place for subsequent plumb alignment.



Preparation of the floor slab

The formwork of the floor slab is put in place.

The reinforcement of the floor slab is inserted.



Plumb alignment/concreting

After inserting the upper layer of reinforcement, the MHC lining pipes are aligned plumb.

The securing holes of the spacers can be used to secure the plumb position to the upper layer of reinforcement using tie wire.

After alignment and securing, the floor slab can be concreted.

Master-Home-Connect (MHC) Installation



Connection of the floor slab vapour barrier

A foil flange seal made of PVC foil with a thickness of 1.5 mm, suitable for the MHC service duct system, for the integration of the surface-wide vapour barrier on the floor slab, is available. It is designed in the factory for the quadruple row arrangement. The foil flange is pushed over the lining pipes from the inside of the structure and clamped to the pipe body with fastening straps. The surface waterproofing is processed on the flange. When using fewer than 4 lining pipes, the foil flange can be cut off on site.



Floor construction

The planned floor construction, generally comprising thermal insulation, impact sound insulation, underfloor heating as applicable, screed and covering layer, can then be applied. The length of the lining pipes is designed for a floor construction with a slab-to-floor height of up to 250 mm. For a visually appealing result, for a floor construction < 250 mm, cutting off the projecting lining pipes to the level of the top edge of the finished floor is recommended. This can be done before or after preparing the floor construction.



Installation of end caps/ insertion of media lines

The end caps are pushed onto the cable conduits at the transition point and the media lines are inserted.

Solo end cap: 1 media line 4-40 mm

Duo end cap: 2 media lines each 4-25 mm

The end caps are secured both to the cable conduit and the media line using the supplied clamps.



Installation of the MHC gasket insert

Finally, the MHC gasket inserts are installed from the inside of the structure:

MHC Solo gasket insert: 1 media line 4-40 mm

MHC Multi gasket insert:

up to 2 media lines 2 x 4-25 mm + 2 x 10 mm

You will find detailed installation instructions for adapting to the media line on page 134, and for installation of the gasket insert on page 136.

Lining pipes

Pressure water-tight
recess pipes for installation flush
with formwork

Simple installation with the
FIX formwork aid



UniCut lining pipe

page 121



FASO lining pipes

pages 122 – 124



WELLO active lining pipe

page 125



DURO Plus

High-pressure lining pipe

page 126



MKD cable bushing

page 127



Lining pipe accessories

pages 128 – 129

Closure plugs +

MASTERTEC Connector connection seal

For the subsequent, professional introduction of pipes and lines into buildings, the use of lining pipes is essential. The components are manufactured for the corresponding wall thickness, enable installation flush with the formwork and form a pressure water-tight bond with the surrounding concrete component.

They leave a circular recess with a smooth surface in the wall, into which pipes and cables can subsequently be fed and sealed with MASTER-Ring gasket inserts or MASTER-SEAL modular seals.

UniCut lining pipe

The lining pipe for stock keeping.
24 installation options with 3 products

- Suitable for wall thickness 200 to 500 mm
- Easy on-site cutting on saw groove or in fixed length
- Pressure water-tight "Novo" waterstop
- Trowel flange for the connection of the outer seal
- Suitable for gasket inserts and modular seals
- Supplied with 2 closure plugs



Supplied with
2 closure plugs

Art.Gr.
430

Dimensions

Art. no.	Description	Wall thickness/ length mm	PU	Weight per pc.	Price per pc.	Page 110	Order FIX formwork aid separately
082504	UniCut lining pipe DN 100	Fixed length	200	1 pc.	0.87 kg	€38.50	
082505	UniCut lining pipe DN 100	Fixed length	240	1 pc.	0.95 kg	€38.50	
082506	UniCut lining pipe DN 100	Fixed length	250	1 pc.	0.97 kg	€38.50	
082507	UniCut lining pipe DN 100	Fixed length	300	1 pc.	1.07 kg	€38.50	
082508	UniCut lining pipe DN 100	Fixed length	350	1 pc.	1.17 kg	€38.50	
082509	UniCut lining pipe DN 100	Fixed length	365	1 pc.	1.20 kg	€38.50	
082511	UniCut lining pipe DN 100	Fixed length	400	1 pc.	1.27 kg	€38.50	
082510	UniCut lining pipe DN 100	Stock length	500	1 pc.	1.42 kg	€35.40	
082512	UniCut lining pipe DN 150	Fixed length	200	1 pc.	1.10 kg	€49.70	
082513	UniCut lining pipe DN 150	Fixed length	240	1 pc.	1.22 kg	€49.70	
082514	UniCut lining pipe DN 150	Fixed length	250	1 pc.	1.25 kg	€49.70	
082516	UniCut lining pipe DN 150	Fixed length	300	1 pc.	1.40 kg	€49.70	
082517	UniCut lining pipe DN 150	Fixed length	350	1 pc.	1.55 kg	€49.70	
082518	UniCut lining pipe DN 150	Fixed length	365	1 pc.	1.59 kg	€49.70	
082519	UniCut lining pipe DN 150	Fixed length	400	1 pc.	1.70 kg	€49.70	
082515	UniCut lining pipe DN 150	Stock length	500	1 pc.	1.89 kg	€46.50	
082521	UniCut lining pipe DN 200	Fixed length	200	1 pc.	1.33 kg	€60,90	
082522	UniCut lining pipe DN 200	Fixed length	240	1 pc.	1.49 kg	€60,90	
082523	UniCut lining pipe DN 200	Fixed length	250	1 pc.	1.53 kg	€60,90	
082524	UniCut lining pipe DN 200	Fixed length	300	1 pc.	1.72 kg	€60,90	
082525	UniCut lining pipe DN 200	Fixed length	350	1 pc.	1.92 kg	€60,90	
082526	UniCut lining pipe DN 200	Fixed length	365	1 pc.	1.98 kg	€60,90	
082527	UniCut lining pipe DN 200	Fixed length	400	1 pc.	2.12 kg	€60,90	
082520	UniCut lining pipe DN 200	Stock length	500	1 pc.	2.35 kg	€57.80	



With saw grooves for cutting to length at the construction site



With waterstop



Fastening using the trowel flange

FASO lining pipe



Lining pipe made of fibre cement for lead-through of pipes and cables

- Tested based on the German WU directive for Water-Impermeable Concrete Buildings against pressurised water and non-pressurised water
- The external corrugation bonds homogeneously with the concrete and is water-tight.
No additional external waterproofing is required.
- Diameter DN 50 to DN 800 immediately available in stock for delivery in all lengths
- Suitable for gasket inserts and modular seals
- DN 50 to DN 800 can be extended up to 1600 mm.
We use PROTECT BK 2K (Art. No. 040100) for this purpose.



Building material class A1
– non-flammable

Art.Gr.
405

Special lengths

- Any intermediate lengths can be supplied – we charge the price of the next higher stock length
- DN 50 to DN 400 available for delivery with closure plug, please order separately.
- We will inform you whether delivery is to be made by freight forwarder or courier.

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Order closure
plug or
FIX formwork
aid separately

FASO inner Ø mm	outer Ø mm	Standard lengths												No closure plug available DN 450 – DN 800
		200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	800 mm	1000 mm	1200 mm	
DN 50 Weight/pc. €/pc.	90	080020 1.82 kg 20.80	080021 2.18 kg 24.50	080022 2.27 kg 25.40	080023 2.73 kg 30.10	080024 3.18 kg 34.70	080025 3.32 kg 36.10	080026 3.64 kg 39.40	080027 4.55 kg 48.60	080028 5.46 kg 57.80	080029 7.27 kg 76.30	080030 9.09 kg 94.80	080031 10.91 kg 114.40	
DN 80 Weight/pc. €/pc.	120	080210 2.58 kg 22.60	080211 3.09 kg 26.60	080212 3.22 kg 27.60	080213 3.86 kg 32.70	080214 4.51 kg 37.90	080215 4.70 kg 39.40	080216 5.15 kg 43.00	080217 6.44 kg 53.20	080218 7.73 kg 63.40	080918 10.30 kg 83.80	080950 12.88 kg 104.20	080219 15.46 kg 126.90	
DN 100 Weight/pc. €/pc.	140	080220 3.39 kg 27.50	080221 4.07 kg 32.60	080222 4.24 kg 33.80	080223 5.09 kg 40.10	080224 5.94 kg 46.40	080225 6.19 kg 48.30	080226 6.78 kg 52.80	080227 8.48 kg 65.40	080228 10.18 kg 77.90	080921 13.33 kg 103.20	080952 16.96 kg 128.40	080229 20.35 kg 158.60	
DN 125 Weight/pc. €/pc.	165	080230 3.81 kg 33.30	080231 4.57 kg 39.50	080232 4.76 kg 41.00	080233 5.71 kg 48.80	080234 6.66 kg 56.50	080235 6.95 kg 58.90	080236 7.62 kg 64.30	080237 9.52 kg 79.70	080238 11.42 kg 95.20	080922 15.45 kg 126.20	080954 19.04 kg 157.10	080239 22.85 kg 191.50	
DN 150 Weight/pc. €/pc.	190	080240 4.32 kg 43.20	080241 5.18 kg 51.30	080242 5.40 kg 53.40	080243 6.48 kg 63.60	080244 7.56 kg 73.80	080245 7.88 kg 76.90	080246 8.64 kg 84.00	080247 10.80 kg 104.40	080248 12.96 kg 124.90	080924 17.27 kg 165.70	080956 21.59 kg 206.60	080249 25.91 kg 247.40	
DN 200 Weight/pc. €/pc.	250	080250 7.18 kg 49.30	080251 8.62 kg 58.70	080252 8.98 kg 61.00	080253 10.78 kg 72.80	080254 12.57 kg 84.50	080255 13.11 kg 88.00	080256 14.37 kg 96.10	080257 17.96 kg 119.60	080258 21.55 kg 119.60	080926 28.74 kg 143.10	080958 35.92 kg 190.10	080259 43.10 kg 236.90	
DN 250 Weight/pc. €/pc.	300	080260 8.94 kg 61.40	080261 10.73 kg 73.20	080262 11.17 kg 76.20	080263 13.41 kg 90.90	080264 15.64 kg 105.60	080265 16.31 kg 110.10	080266 17.88 kg 120.40	080267 22.35 kg 149.80	080268 26.82 kg 179.30	080928 35.76 kg 238.10	080960 44.70 kg 297.00	080269 53.64 kg 355.90	
DN 300 Weight/pc. €/pc.	350	080270 10.07 kg 67.10	080271 12.09 kg 80.00	080272 12.59 kg 83.30	080273 15.11 kg 99.40	080274 17.63 kg 115.60	080275 18.38 kg 120.50	080276 20.14 kg 131.80	080277 25.18 kg 164.10	080278 30.22 kg 196.50	080930 40.29 kg 261.20	080962 50.36 kg 325.80	080279 60.43 kg 390.50	
DN 350 Weight/pc. €/pc.	400	080280 11.59 kg 95.70	080281 13.91 kg 112.80	080282 14.49 kg 117.10	080283 17.39 kg 138.50	080284 20.28 kg 159.80	080285 21.15 kg 166.20	080286 23.18 kg 181.10	080287 28.98 kg 223.80	080288 34.77 kg 266.40	080932 46.36 kg 351.80	080964 57.96 kg 437.10	080289 69.55 kg 522.40	
DN 400 Weight/pc. €/pc.	460	080290 15.76 kg 129.90	080291 18.91 kg 153.80	080292 19.70 kg 159.80	080293 23.64 kg 189.70	080294 27.58 kg 219.50	080295 28.77 kg 228.50	080296 31.52 kg 249.40	080297 39.41 kg 309.20	080298 47.29 kg 368.80	080934 63.05 kg 488.30	080966 78.81 kg 607.70	080299 94.57 kg 727.20	
DN 450 Weight/pc. €/pc.	510	080300 18.08 kg 150.80	080301 21.70 kg 179.00	080302 22.60 kg 186.00	080303 27.12 kg 221.10	080304 31.64 kg 256.10	080305 33.00 kg 266.60	080306 36.16 kg 291.20	080307 45.20 kg 361.40	080308 54.24 kg 431.60	080936 72.33 kg 572.00	080968 90.41 kg 712.30	080309 108.49 kg 852.70	
DN 500 Weight/pc. €/pc.	570	080310 23.70 kg 170.50	080311 28.44 kg 202.50	080312 29.63 kg 210.50	080313 35.56 kg 250.50	080314 41.48 kg 290.50	080315 43.26 kg 302.60	080316 47.41 kg 330.60	080317 59.26 kg 410.50	080318 71.11 kg 490.50	080938 94.82 kg 650.60	080970 118.52 kg 810.70	080319 142.22 kg 970.60	
DN 600 Weight/pc. €/pc.	670	080320 28.32 kg 219.50	080321 33.98 kg 260.10	080322 35.39 kg 270.30	080323 42.47 kg 321.00	080324 49.55 kg 371.70	080325 51.67 kg 386.90	080326 56.63 kg 422.50	080327 70.79 kg 523.80	080328 84.94 kg 625.30	080940 113.26 kg 828.20	080972 141.57 kg 1031.00	080329 169.88 kg 1233.80	
DN 700 Weight/pc. €/pc.	780	080330 38.22 kg 255.20	080331 45.86 kg 302.80	080332 47.77 kg 314.70	080333 57.32 kg 374.20	080334 66.88 kg 433.90	080335 69.74 kg 451.70	080336 76.43 kg 493.40	080337 95.54 kg 612.60	080338 114.65 kg 731.80	080942 152.86 kg 970.00	080974 191.08 kg 1208.20	080339 229.29 kg 1446.50	
DN 800 Weight/pc. €/pc.	880	080340 42.17 kg 294.90	080341 50.61 kg 350.50	080342 52.72 kg 364.40	080343 63.26 kg 433.90	080344 73.80 kg 503.40	080345 76.96 kg 524.20	080346 84.35 kg 572.80	080347 105.43 kg 711.90	080348 126.52 kg 850.80	080944 168.69 kg 1128.80	080976 210.86 kg 1406.80	080349 253.03 kg 1684.80	

FASO lining pipe, split



When media lines have already been laid, the split version FASO lining pipes can be installed and bonded afterwards.

- Against pressurised and non-pressurised water
- Diameters DN 50 to DN 400 available for immediate delivery



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FASO split inner Ø mm	outer Ø mm	Standard lengths										
		200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	800 mm	1000 mm
DN 50 Weight/pc. €/pc.	90	080020T 1.82 kg 30.50	080021T 2.18 kg 36.30	080022T 2.27 kg 37.90	080023T 2.73 kg 45.30	080024T 3.18 kg 52.70	080025T 3.32 kg 54.90	080026T 3.64 kg 60.00	080027T 4.55 kg 74.70	080028T 5.46 kg 89.50	080029T 7.27 kg 119.00	080030T 9.09 kg 148.50
DN 80 Weight/pc. €/pc.	120	080210T 2.58 kg 34.70	080211T 3.09 kg 41.30	080212T 3.22 kg 43.00	080213T 3.86 kg 51.40	080214T 4.51 kg 59.80	080215T 4.70 kg 62.30	080216T 5.15 kg 68.30	080217T 6.44 kg 85.00	080218T 7.73 kg 101.90	080918T 10.30 kg 135.50	080950T 12.88 kg 169.00
DN 100 Weight/pc. €/pc.	140	080220T 3.39 kg 38.90	080221T 4.07 kg 46.50	080222T 4.24 kg 48.40	080223T 5.09 kg 57.90	080224T 5.94 kg 67.30	080225T 6.19 kg 70.20	080226T 6.78 kg 76.90	080227T 8.48 kg 95.80	080228T 10.18 kg 114.80	080921T 13.33 kg 152.70	080952T 16.96 kg 190.70
DN 125 Weight/pc. €/pc.	165	080230T 3.81 kg 44.40	080231T 4.57 kg 53.00	080232T 4.76 kg 55.20	080233T 5.71 kg 66.00	080234T 6.66 kg 76.70	080235T 6.95 kg 80.00	080236T 7.62 kg 87.60	080237T 9.52 kg 109.20	080238T 11.42 kg 130.90	080922T 15.45 kg 174.10	080954T 19.04 kg 217.40
DN 150 Weight/pc. €/pc.	190	080240T 4.32 kg 55.50	080241T 5.18 kg 66.40	080242T 5.40 kg 69.10	080243T 6.48 kg 82.80	080244T 7.56 kg 96.40	080245T 7.88 kg 100.50	080246T 8.64 kg 110.00	080247T 10.80 kg 137.10	080248T 12.96 kg 164.40	080924T 17.27 kg 218.90	080956T 21.59 kg 273.40
DN 200 Weight/pc. €/pc.	250	080250T 7.18 kg 62.50	080251T 8.62 kg 74.70	080252T 8.98 kg 77.80	080253T 10.78 kg 93.20	080254T 12.57 kg 108.50	080255T 13.11 kg 113.10	080256T 14.37 kg 123.90	080257T 17.96 kg 154.50	080258T 21.55 kg 185.30	080926T 28.74 kg 246.70	080958T 35.92 kg 308.10
DN 250 Weight/pc. €/pc.	300	080260T 8.94 kg 70.60	080261T 10.73 kg 84.50	080262T 11.17 kg 88.00	080263T 13.41 kg 105.40	080264T 15.64 kg 122.80	080265T 16.31 kg 128.10	080266T 17.88 kg 140.20	080267T 22.35 kg 175.00	080268T 26.82 kg 175.00	080928T 35.76 kg 279.40	080960T 44.70 kg 349.00
DN 300 Weight/pc. €/pc.	350	080270T 10.07 kg 82.80	080271T 12.09 kg 99.10	080272T 12.59 kg 103.20	080273T 15.11 kg 123.60	080274T 17.63 kg 144.00	080275T 18.38 kg 150.10	080276T 20.14 kg 164.40	080277T 25.18 kg 205.30	080278T 30.22 kg 246.10	080930T 40.29 kg 327.90	080962T 50.36 kg 409.60
DN 350 Weight/pc. €/pc.	400	080280T 11.59 kg 158.20	080281T 13.91 kg 179.60	080282T 14.49 kg 184.90	080283T 17.39 kg 211.80	080284T 20.28 kg 250.90	080285T 21.15 kg 258.90	080286T 23.18 kg 277.70	080287T 28.98 kg 331.30	080288T 34.77 kg 404.60	080932T 46.36 kg 512.00	080964T 57.96 kg 619.20
DN 400 Weight/pc. €/pc.	460	080290T 15.76 kg 201.10	080291T 18.91 kg 231.20	080292T 19.70 kg 238.60	080293T 23.64 kg 276.20	080294T 27.58 kg 326.00	080295T 28.77 kg 337.30	080296T 31.52 kg 363.50	080297T 39.41 kg 438.70	080298T 47.29 kg 533.40	080934T 63.05 kg 683.70	080966T 78.81 kg 833.90



1. Place the supplied spacers on the cut edge of the lower shell and apply PROTECT Easy 1K (art. no. 040030) on the cut edges (usage: approx. 150 g/m on both sides). The PROTECT Easy 1K concrete adhesive must be ordered separately.



2. Fit the upper shell and press it on so that the adhesive is pressed out of the joint. In the process, you must make sure that the spacers remain in position. Smooth the joints inside the lining pipe in order to achieve a clean surface for possible installation of a gasket insert.



PROTECT Easy 1K (art. no. 040030)
Single-component polymer-based concrete adhesive
For water-tight bonding of split FASO lining pipes. You will find the adhesive on page 104 in our complete catalogue.



FASO lining pipe with installed flange

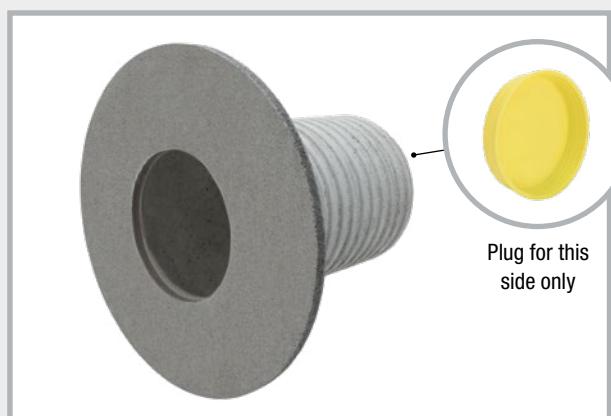
- Against pressurised and non-pressurised water
- With adhesive flange according to DIN 18533
- Can be used in conjunction with the following waterproofing materials:
 - Thick coating
 - All common types of external waterproofing
 - Waterproofing slurries
 - Connection of fresh concrete compound foil (FBV) using liquid plastic

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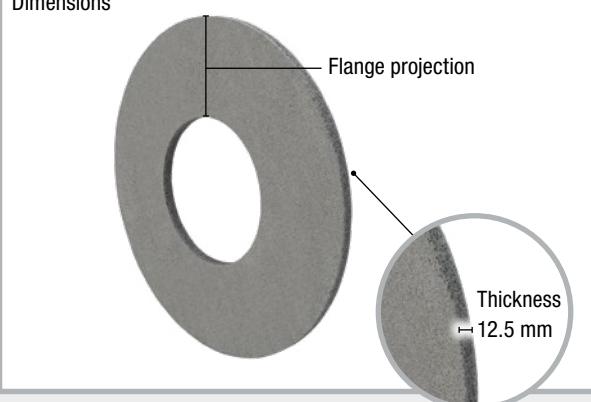
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Order
closure plug or
FIX formwork
aid separately

FASO inner Ø mm	Flange dimensions: Outer diameter x thickness	Flange projection mm	Standard lengths									
			200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	
DN 50 Weight/pc. €/pc.	250 x 12.5 mm	100	080020F 2.42 kg 182.90	080021F 2.78 kg 186.50	080022F 2.87 kg 187.50	080023F 3.33 kg 192.10	080024F 3.78 kg 196.70	080025F 3.92 kg 198.20	080026F 4.24 kg 201.40	080027F 5.15 kg 210.60	080028F 6.06 kg 219.80	
DN 80 Weight/pc. €/pc.	250 x 12.5 mm	85	080210F 3.13 kg 187.10	080211F 3.64 kg 191.10	080212F 3.77 kg 192.10	080213F 4.41 kg 197.20	080214F 5.06 kg 202.40	080215F 5.25 kg 203.90	080216F 5.70 kg 207.50	080217F 6.99 kg 217.70	080218F 8.28 kg 227.90	
DN 100 Weight/pc. €/pc.	300 x 12.5 mm	100	080220F 4.19 kg 193.40	080221F 4.87 kg 198.50	080222F 5.04 kg 199.70	080223F 5.89 kg 206.00	080224F 6.74 kg 212.30	080225F 6.99 kg 214.20	080226F 7.58 kg 218.70	080227F 9.28 kg 231.20	080228F 10.98 kg 243.80	
DN 125 Weight/pc. €/pc.	325 x 12.5 mm	100	080230F 4.71 kg 207.10	080231F 5.47 kg 213.20	080232F 5.66 kg 214.80	080233F 6.61 kg 222.60	080234F 7.56 kg 230.30	080235F 7.85 kg 232.70	080236F 8.52 kg 238.10	080237F 10.42 kg 253.50	080238F 12.32 kg 269.00	
DN 150 Weight/pc. €/pc.	350 x 12.5 mm	100	080240F 5.32 kg 217.80	080241F 6.18 kg 225.90	080242F 6.40 kg 228.00	080243F 7.48 kg 238.20	080244F 8.56 kg 248.40	080245F 8.88 kg 251.50	080246F 9.64 kg 258.60	080247F 11.80 kg 279.00	080248F 13.96 kg 299.50	
DN 200 Weight/pc. €/pc.	400 x 12.5 mm	100	080250F 8.38 kg 226.20	080251F 9.82 kg 235.60	080252F 10.18 kg 238.00	080253F 11.98 kg 249.70	080254F 13.77 kg 261.50	080255F 14.31 kg 265.00	080256F 15.57 kg 273.10	080257F 19.16 kg 296.60	080258F 22.75 kg 320.10	
DN 250 Weight/pc. €/pc.	450 x 12.5 mm	100	080260F 10.34 kg 254.20	080261F 12.13 kg 265.90	080262F 12.57 kg 268.90	080263F 14.81 kg 283.60	080264F 17.04 kg 298.30	080265F 17.71 kg 302.80	080266F 19.28 kg 313.10	080267F 23.75 kg 342.50	080268F 28.22 kg 372.00	
DN 300 Weight/pc. €/pc.	500 x 12.5 mm	100	080270F 11.67 kg 262.10	080271F 13.69 kg 275.00	080272F 14.19 kg 278.30	080273F 16.71 kg 294.40	080274F 19.23 kg 310.60	080275F 19.98 kg 315.40	080276F 21.74 kg 326.80	080277F 26.78 kg 359.10	080278F 31.82 kg 391.40	



Dimensions



The flange is applied to the desired lining pipe on our premises.

Art.Gr.
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WELLO active lining pipe

When the use of sealing collars is not possible, lining pipes are installed, which enable the subsequent water-tight lead-through of the medium pipe into the building.

The cost-efficient PE lining pipe is available at short notice ex stock in dia. 100 to 400 mm. Its inner surface is smooth. The corrugated outside ensures a firm bond with the concrete. Two swelling tapes applied centrally around the lining pipe act as waterstops.



Tested for impermeability up to 20 m water column

WELLO inner Ø mm	Standard lengths									Page 128 / 110 Order closure plug or FIX formwork aid separately
	200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	
DN 100 Weight/pc. €/pc.	080130 0.17 kg 30.70	080131 0.19 kg 31.50	080132 0.20 kg 31.50	080133 0.23 kg 33.00	080134 0.26 kg 34.30	080135 0.26 kg 34.30	080136 0.28 kg 35.50	080137 0.34 kg 36.60	080138 0.40 kg 38.40	
DN 125 Weight/pc. €/pc.	080140 0.26 kg 33.00	080141 0.30 kg 34.30	080142 0.31 kg 34.30	080143 0.36 kg 35.90	080144 0.41 kg 36.90	080145 0.42 kg 36.90	080146 0.46 kg 38.40	080147 0.56 kg 40.40	080148 0.65 kg 42.70	
DN 150 Weight/pc. €/pc.	080150 0.29 kg 35.40	080151 0.33 kg 36.30	080152 0.35 kg 36.30	080153 0.40 kg 38.20	080154 0.45 kg 39.60	080155 0.47 kg 39.60	080156 0.51 kg 41.70	080157 0.62 kg 43.60	080158 0.72 kg 46.00	
DN 200 Weight/pc. €/pc.	080160 0.57 kg 41.60	080161 0.66 kg 42.90	080162 0.68 kg 42.90	080163 0.80 kg 44.20	080164 0.92 kg 46.00	080165 0.95 kg 46.00	080166 1.03 kg 49.00	080167 1.27 kg 53.20	080168 1.50 kg 57.60	
*DN 250 Weight/pc. €/pc.	080170 0.86 kg 43.90	080171 1.01 kg 46.00	080172 1.04 kg 46.50	080173 1.23 kg 49.10	080174 1.41 kg 51.70	080175 1.46 kg 52.40	080176 1.59 kg 54.20	080177 1.96 kg 59.40	080178 2.33 kg 64.40	
DN 300 Weight/pc. €/pc.	080180 1.20 kg 48.90	080181 1.41 kg 51.40	080182 1.46 kg 52.20	080183 1.72 kg 55.50	080184 1.99 kg 58.80	080185 2.06 kg 59.80	080186 2.25 kg 62.20	080187 2.77 kg 68.80	080188 3.30 kg 75.30	
*DN 350 Weight/pc. €/pc.	080190 1.67 kg 56.30	080191 1.97 kg 59.40	080192 2.05 kg 60.10	080193 2.42 kg 63.90	080194 2.80 kg 67.60	080195 2.91 kg 68.80	080196 3.17 kg 71.40	080197 3.92 kg 79.10	080198 4.67 kg 86.60	
DN 400 Weight/pc. €/pc.	080200 2.10 kg 66.10	080201 2.48 kg 70.00	080202 2.57 kg 70.90	080203 3.04 kg 75.70	080204 3.52 kg 80.50	080205 3.66 kg 82.00	080206 3.99 kg 85.30	080207 4.94 kg 95.00	080208 5.89 kg 104.70	

Special lengths: Any intermediate lengths can be supplied.

* DN 250 + DN 350 waterproofing with modular seal only

Up to length of 600 mm, the price will be that of the next higher stock length.

Maximum length of lining pipe: 2000 mm

We recommend installation with closure plugs

DURO Plus high-pressure lining pipe



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DURO Plus are high pressure-resistant lining pipes for secure and permanent routing of pipes and cables in buildings. A sealing collar which can withstand water pressures of up to a 70 m water column is fitted to the lining pipes at the factory and provides reliable protection from radon penetration.

The diameters DN 50 to DN 300 are available within a few days. When ordering, please state whether you require the lining pipes with or without plugs.



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DURO inner Ø mm	Ø Outside mm	Standard lengths												Order clo- sure plug or FIX formwork aid separately
		200 mm	240 mm	250 mm	300 mm	350 mm	365 mm	400 mm	500 mm	600 mm	800 mm	1000 mm	1200 mm	
DN 50 Weight/pc. €/pc.	54	090010 0.35 kg 25.00	090013 0.37 kg 25.50	090016 0.38 kg 26.00	090019 0.40 kg 26.50	090022 0.42 kg 27.00	090025 0.43 kg 27.50	090028 0.45 kg 28.00	090031 0.49 kg 29.00	090034 0.54 kg 30.00	090037 0.63 kg 32.00	090040 0.73 kg 34.00	090043 0.82 kg 36.00	
DN 80 Weight/pc. €/pc.	85	090050 0.31 kg 30.00	090053 0.35 kg 30.50	090056 0.36 kg 31.00	090059 0.41 kg 31.50	090062 0.46 kg 32.00	090065 0.47 kg 32.50	090068 0.51 kg 33.00	090071 0.60 kg 34.00	090074 0.70 kg 35.00	090077 0.89 kg 37.00	090080 1.09 kg 39.00	090083 1.28 kg 41.00	
DN 100 Weight/pc. €/pc.	110	090110 0.67 kg 32.00	090113 0.76 kg 32.50	090116 0.79 kg 33.00	090119 0.91 kg 33.50	090122 1.04 kg 34.00	090125 1.07 kg 34.50	090128 1.16 kg 35.00	090131 1.41 kg 36.00	090134 1.65 kg 38.00	090137 2.15 kg 42.00	090140 2.64 kg 47.00	090143 3.13 kg 52.00	
DN 125 Weight/pc. €/pc.	137	090150 0.78 kg 37.00	090153 0.90 kg 38.00	090156 0.93 kg 39.00	090159 1.08 kg 40.00	090162 1.23 kg 41.00	090165 1.27 kg 42.00	090168 1.38 kg 43.00	090171 1.67 kg 47.00	090174 1.97 kg 52.00	090177 2.56 kg 63.00	090180 3.16 kg 74.00	090183 3.75 kg 85.00	
DN 150 Weight/pc. €/pc.	162	090210 0.91 kg 44.00	090213 1.05 kg 45.00	090216 1.08 kg 46.00	090219 1.26 kg 50.00	090222 1.44 kg 55.00	090225 1.49 kg 56.00	090228 1.61 kg 60.00	090231 1.97 kg 70.00	090234 2.32 kg 80.00	090237 3.03 kg 100.00	090240 3.73 kg 117.00	090243 4.44 kg 137.00	
DN 200 Weight/pc. €/pc.	214	090250 1.44 kg 52.00	090253 1.68 kg 53.00	090256 1.74 kg 54.00	090259 2.03 kg 60.00	090262 2.32 kg 67.00	090265 2.41 kg 68.00	090268 2.62 kg 73.00	090271 3.20 kg 86.00	090274 3.79 kg 99.00	090277 4.96 kg 125.00	090280 6.14 kg 150.00	090283 7.31 kg 175.00	
DN 250 Weight/pc. €/pc.	264	090310 1.71 kg 75.00	090313 2.00 kg 76.00	090316 2.07 kg 77.00	090319 2.42 kg 87.00	090322 2.77 kg 97.00	090325 2.88 kg 100.00	090328 3.13 kg 107.00	090331 3.83 kg 127.00	090334 4.54 kg 147.00	090337 5.95 kg 186.00	090340 7.37 kg 225.00	090343 8.78 kg 265.00	
DN 300 Weight/pc. €/pc.	316	090350 2.57 kg 88.00	090353 3.00 kg 89.00	090356 3.11 kg 90.00	090359 3.66 kg 100.00	090362 4.21 kg 105.00	090365 4.37 kg 110.00	090368 4.75 kg 120.00	090371 5.85 kg 140.00	090374 6.94 kg 160.00	090377 9.13 kg 200.00	090380 11.31 kg 237.00	090383 13.50 kg 280.00	

Special lengths: Any intermediate lengths can be supplied.

We charge the price of the next higher stock length.

Lengths up to 3000 mm are available.

We recommend installation with closure plugs



Production possible according to your individual specifications

MASTERTEC

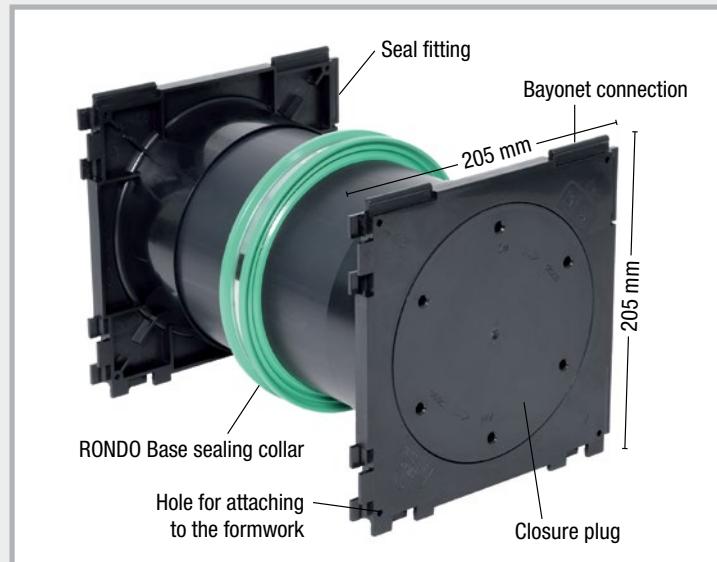
MKD 150 cable bushing



Stay flexible with the MKD 150 cable bushing

The MKD 150 cable bushing is manufactured in the corresponding wall thickness and consists of 2 seal fittings, a factory-installed high-pressure waterstop and a closure plug which is pressure-tight up to a water column of 25 m. The bayonet connections are compatible with all standard systems.

- Flexible connection of cables in new buildings
- Sealing with RONDO Base sealing collar
- Stable design due to solid wall material
- Compatible with all standard systems

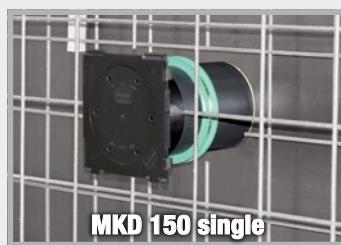


We recommend using gasket inserts for the waterproofing.

You can achieve maximum pressure resistance using this system.



Seal fitting on both sides



Seal fitting on one side; closure plug on the other side

Product range

Art.Gr.
411

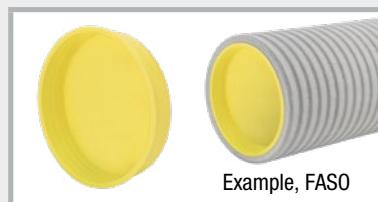
MKD 150 – double version					MKD 150 – single version				
Art. no.	Wall thickness	PU	Weight per pc.	Price per pc.	Art. no.	Wall thickness	PU	Weight per pc.	Price per pc.
162410	180 mm	1 pc.	1.30 kg	€72.00	162460	180 mm	1 pc.	1.10 kg	€48.00
162415	200 mm	1 pc.	1.40 kg	€72.00	162465	200 mm	1 pc.	1.20 kg	€48.00
162420	240 mm	1 pc.	1.50 kg	€72.00	162470	240 mm	1 pc.	1.30 kg	€48.00
162425	250 mm	1 pc.	1.60 kg	€72.00	162475	250 mm	1 pc.	1.40 kg	€48.00
162430	300 mm	1 pc.	1.70 kg	€74.30	162480	300 mm	1 pc.	1.50 kg	€52.50
162435	350 mm	1 pc.	1.90 kg	€74.30	162485	350 mm	1 pc.	1.70 kg	€52.50
162440	365 mm	1 pc.	1.95 kg	€74.30	162490	365 mm	1 pc.	1.80 kg	€52.50
162445	400 mm	1 pc.	2.10 kg	€74.30	162495	400 mm	1 pc.	1.90 kg	€52.50
162400	Key for opening the closure plug								€46.00

Other wall thicknesses are available on request

MASTER-RING gasket inserts are available on request. You will need to let us know the outer diameters of the cables and pipes to be led through.

Accessories for lining pipes

Closure plug + installation aid for lining pipes

Art.Gr.
452

Example, FASO

	Diameter mm									
	50	80	100	125	150	200	250	300	350	400
Art. no.	090403	090401	090400	090402	090404	090406	090408	090410	090412	090414
Weight/pc.	0.005 kg	0.02 kg	0.02 kg	0.03 kg	0.05 kg	0.08 kg	0.12 kg	0.13 kg	0.40 kg	0.45 kg
€/pc.	2.00	2.40	2.40	3.00	4.10	5.60	8.60	10.80	23.60	28.60

Sewage socket ring for sewage pipe bushings

Flow direction type

Art.Gr.
451

Art. no.	Type	PU	Weight/pc.	Price/pc.	
080476	MFR 110	1 pc.	0.05 kg	€10.90	
080477	MFR 125	1 pc.	0.06 kg	€11.30	
080478	MFR 160	1 pc.	0.08 kg	€12.50	
080479	MFR 200	1 pc.	0.13 kg	€13.00	



Foil flange Solo

for lining pipes,

Pressurised water test up to 14 m water column

Dimension 50 x 50 cm, incl. mounting strap

Art.Gr.
453

	Lining pipe diameter in mm					
	50	80	100	125	150	200
Art. no.	090388	090389	090390	090391	090392	090393
Weight/pc.	0.19 kg	0.20 kg	0.43 kg	0.45 kg	0.47 kg	0.70 kg
€/pc.	29.80	31.00	32.20	34.40	36.60	38.80



Foil flange made of 1.5 mm PVC foil, resistant to oil and bitumen, weldable with hot air gun, bondable with solvent welding agent



Suitable for WELLO, FASO, DURO, KG and KG 2000 lining pipes



Foil flange Solo fully assembled

For fixing the foil flange to the component, we recommend the POWER swelling tape adhesive (art. no. 010052) on page 12 of the complete catalogue.
Also suitable for refurbishment or retrofitting.





MASTERTEC Connector

Connection seal

With the MASTERTEC Connector connection seal, corrugated cable conduits (corrugated pipes) or sewage pipes can be professionally connected to core drill holes or lining pipes.

- Pressure water-tight: Corrugated pipe: up to 10 m water column
KG pipe (sewage pipe): up to 20 m water column
- Easy installation
- Adapted to common corrugated pipe outer diameters and sewage pipe Ø 110 mm

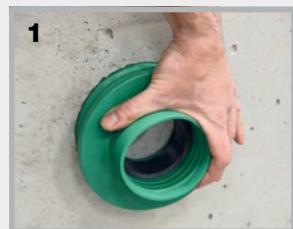


Art.Gr.
431

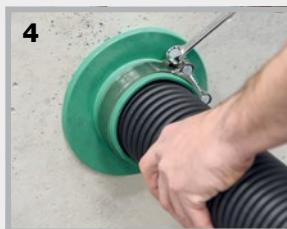
Dimensions

Art. no.	Type	Ø lining pipe/ core drill hole	Ø connection pipe	PU	Weight per pc.	Price per pc.
090850	MC 100 / 75W	100 mm	Corrugated pipe Ø 75 mm	1 pc.	0.57 kg	€25.40
090852	MC 150 / 90W	150 mm	Corrugated pipe Ø 90 mm	1 pc.	1.01 kg	€33.90
090854	MC 150 / 110W	150 mm	Corrugated pipe Ø 110 mm	1 pc.	0.91 kg	€40.90
090856	MC 150 / 110 KG	150 mm	Sewage pipe Ø 110 mm	1 pc.	0.88 kg	€35.60

Installation with corrugated pipe



1. The connection seal is positioned in the core drill hole/lining pipe, ...



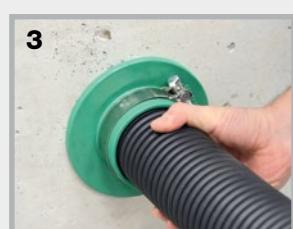
4. ... the clamp is hand-tightened with a ring spanner, ...



2. ... completely hammered in with a rubber mallet, ...



5. ... the cable conduit is connected to the core drill hole or the lining pipe and is pressure water-tight.



3. ... the clamp is placed over the connection seal and the connection pipe pushed in as far as it will go, ...

Installation with sewage pipe



1. The installation is the same as for the cable conduit, ...



2. ... the sewage pipe is pushed completely through the seal and the clamp is hand-tightened with a ring spanner.

Gasket inserts, modular seals + FLEX 2000



MASTER-RING
Gasket insert

page 131



MASTER-RING Supersoft

page 132



MASTER-RING blind plug

page 132



MASTER-RING Multi

pages 133 – 134



MASTER-RING Multi Multiple

page 135



MASTER-RING Multiple

page 136



FLEX 2000

page 137



MASTER-SEAL
Modular seal

pages 138 – 139

MASTER-RING

Stainless steel V2A gasket inserts

Gasket inserts for lining pipes and core drill holes

- One seal against pressurised and non-pressurised water
- Pressure-tight up to 30 m water column, in fixed and secure position up to 50 m
- Rubber thickness 40 mm
- Steel parts and screws made of V2A stainless steel
- Satisfy the requirements of the FHRK testing principles GE 101



Closed version



Split version

Installation: Once the gasket insert has been inserted and the medium pipe has been led through, the screws are tightened crosswise. Give each screw one turn and repeat this procedure several times so the rubber is pressed out uniformly. Maximum torque M6 = 5 Nm, M8 = 10 Nm, M10 = 15 Nm, M12 = 20 Nm. Retighten the nuts after 1–2 hours.

Ø lining pipe/ core drill hole	Medium pipe in mm		Weight per pc.	Closed version		Art.Gr. 440	Split version		Art.Gr. 441
	from	to		Art. no.	Price/pc.		Art. no.	Price/pc.	
50	6	12	0.19 kg	120080	€54.00				
80	20	28	0.39 kg	120100	€60.00		120100T	€68.00	
80	32	40	0.36 kg	120105	€60.00		120105T	€68.00	
80	48	50	0.32 kg	120095	€60.00				
100	15	22	0.58 kg	120107	€65.00				
100	20	28	0.60 kg	120110	€65.00				
100	25	32	0.60 kg	120112	€65.00				
100	32	40	0.58 kg	120115	€65.00		120115T	€75.00	
100	36	44	0.56 kg	120120	€65.00		120120T	€75.00	
100	46	56	0.48 kg	120125	€65.00		120125T	€75.00	
100	55	65	0.51 kg	120130	€65.00		120130T	€75.00	
125	55	64	0.74 kg	120145	€83.00		120145T	€98.00	
125	70	78	0.67 kg	120150	€83.00		120150T	€98.00	
150	46	54	1.53 kg	120152	€102.00				
150	56	66	1.31 kg	120153	€102.00				
150	69	78	1.24 kg	120155	€102.00				
150	79	91	1.17 kg	120160	€102.00				
150	85	94	1.07 kg	120165	€102.00				
150	98	110	0.96 kg	120170	€102.00	120170T		€113.00	
200	88	103	2.13 kg	120172	€129.00				
200	108	115	2.03 kg	120175	€129.00		120175T	€155.00	
200	116	126	1.91 kg	120180	€129.00		120180T	€155.00	
200	132	141	1.51 kg	120185	€129.00				
200	135	144	1.48 kg	120190	€129.00				
200	150	160	1.41 kg	120192	€155.00	120192T		€189.00	
250	135	144	2.86 kg	120195	€195.00				
250	140	149	3.02 kg	120197	€195.00				
250	150	159	2.69 kg	120200	€195.00				
250	157	162	2.65 kg	120205	€195.00		120205T	€231.00	
250	174	181	2.24 kg	120210	€195.00				
250	178	187	2.16 kg	120215	€195.00				
250	197	202	1.84 kg	120216	€219.00		120216T	€270.00	
250	204	210	1.77 kg	120218	€219.00				
300	193	204	3.49 kg	120225	€238.00				
300	218	226	3.17 kg	120230	€238.00				
350	224	233	5.44 kg	120235	€370.00				
350	249	258	4.98 kg	120240	€370.00				
350	270	282	3.64 kg	120242	€370.00				
400	270	280	6.14 kg	120245	€486.00				
400	279	288	6.06 kg	120250	€486.00				
400	304	313	5.47 kg	120255	€486.00				
400	314	323	4.57 kg	120260	€486.00				
400	320	330	4.44 kg	120265	€486.00				

Additional supply options: Steel parts + screws in V4A stainless steel; rubber made of NBR or compliant with potable water quality standards available on request

MASTER-RING Supersoft

Gasket insert for corrugated and thin-walled medium pipes

- Pressure-tight up to 10 m water column
- Soft rubber compound for corrugated and thin-walled medium pipes
- Rubber thickness 2 x 40 mm
- Steel parts and screws made of V2A stainless steel



Art.Gr.
437

Core drill hole mm Lining pipe FASO/ WELLO/DURO Plus	Art. no.	Medium pipe in mm from to	PU	Weight per pc.	Price per pc.
100	120280	46 56	1 pc.	0.73 kg	€74.00
100	120282	55 65	1 pc.	0.72 kg	€114.00
150	120284	69 78	1 pc.	1.88 kg	€138.00
150	120286	85 94	1 pc.	1.57 kg	€139.00
150	120288	98 110	1 pc.	1.32 kg	€146.00
200	120290	108 115	1 pc.	3.04 kg	€194.00
200	120292	119 128	1 pc.	2.52 kg	€194.00
200	120294	150 160	1 pc.	1.95 kg	€250.00
250	120296	156 165	1 pc.	3.70 kg	€269.00

Blind plugs made of stainless steel V2A for core drill hole and lining pipe

- Pressure-tight up to 15 m water column
- Rubber thickness 40 mm
- Steel parts and screws made of V2A stainless steel

Art.Gr.
438

DN	Art. no.	PU	Weight per pc.	Price per pc.
50	120518	1 pc.	0.20 kg	€48.00
80	120520	1 pc.	0.49 kg	€70.00
100	120525	1 pc.	0.75 kg	€78.00
125	120530	1 pc.	1.15 kg	€91.00
150	120535	1 pc.	2.17 kg	€122.00
200	120540	1 pc.	3.40 kg	€174.00
250	120545	1 pc.	5.91 kg	€334.00
300	120550	1 pc.	8.47 kg	€408.00

Blind plugs up to DN 1500 mm available on request





MASTER-RING Multi

Gasket inserts with "onion ring" technology

A large number of installation options with only 4 sizes

Pressure-resistant: 30 metre water column for closed version
7.5 metre water column for split version

Pressure plate material: V2A stainless steel

Screws and nuts: V2A stainless steel

Rubber material: EPDM

Width of rubber: 40 mm

Resistances: Excellent resistance to ageing, weathering and ozone



Art.Gr.
442

MASTER-RING
Multi 100 closed
Art. no. 120135

MASTER-RING
Multi 150 closed
Art. no. 120171

MASTER-RING
Multi 200 closed
Art. no. 120193

MASTER-RING
Multi 250 closed
Art. no. 120222

Weight/pc.

0.61 kg

1.32 kg

1.73 kg

2.52 kg

Price/pc.

€71.00

€113.00

€150.00

€280.00

Art.Gr.
443

MASTER-RING
Multi 100 split
Art. no. 120135T

MASTER-RING
Multi 150 split
Art. no. 120171T

MASTER-RING
Multi 200 split
Art. no. 120193T

MASTER-RING
Multi 250 split
Art. no. 120222T

Weight/pc.

0.61 kg

1.32 kg

1.73 kg

2.52 kg

Price/pc.

€83.00

€120.00

€180.00

€305.00

Medium pipe range	from 18 – 65 mm	from 62 – 110 mm	from 108 – 160 mm	from 158 – 210 mm
Without lid	18 – 20 mm	62 – 64 mm	108 – 110 mm	158 – 160 mm
1. ring	21 – 25 mm	74 – 76 mm	123 – 125 mm	168 – 170 mm
2. ring	26 – 30 mm	88 – 90 mm	138 – 140 mm	178 – 180 mm
3. ring	31 – 35 mm	108 – 110 mm	158 – 160 mm	198 – 200 mm
4. ring	36 – 40 mm			208 – 210 mm
5. ring	41 – 45 mm			
6. ring	46 – 50 mm			
7. ring	51 – 55 mm			
8. ring	56 – 60 mm			
9. ring	61 – 65 mm			

Installation of MASTER-RING Multi

Once you have determined the outer diameter of the pipe to be waterproofed, prepare the MASTER-RING Multi for installation.

Example: Multi 100

Example: core drill hole DN 100 and medium pipe with 18 mm outer diameter



Example: core drill hole DN 100 and medium pipe with 23 mm outer diameter



Remove the yellow plug.

After removing the plug, loosen the first ring ...

... and push it through the gasket insert.



Pushed-through 1st ring

Simply cut off the pushed-through ring using a cutter.

Multi 100 ready for installation

Example: Multi 200

Example: core drill hole DN 200 and medium pipe with 110 mm outer diameter



Example: core drill hole DN 200 and medium pipe with 125 mm outer diameter



Remove the yellow plug.

Release the first ring and push it through the gasket.

Cut off the pushed-through ring using a cutter – the gasket is now ready for installation.

Protection of the core drill hole with epoxy resin

- With MC-Injekt 1264 compact, you preserve the core drill hole permanently.
- Application on dry substrate



MASTER-RING

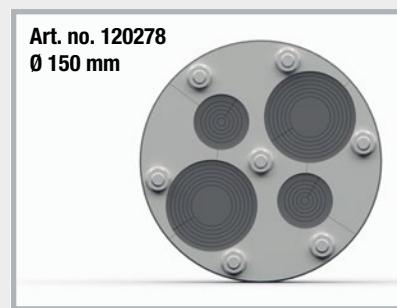
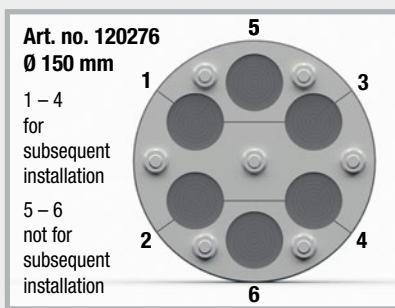
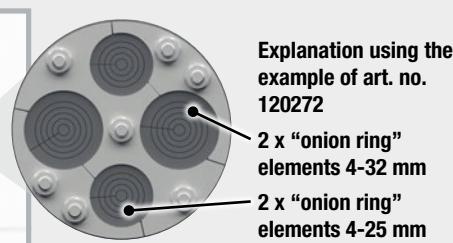
Multi Multiple

Steel parts: V2A stainless steel
 Version: split
 Rubber material: EPDM
 Width of rubber: 40 mm
 Resistances: Excellent resistance to ageing, weathering and ozone



Art.Gr.
444

Ø lining pipe / core drill hole	Art. no.	Media area				Weight per pc.	Price per pc.
		Quantity of "Onion ring" elements	Ø /mm	Quantity of "Onion ring" elements	Ø /mm		
100	120270	3	4-32			0.82 kg	€93.00
100	120272	2	4-32	2	4-25	0.78 kg	€100.00
150	120274	3	22-54			1.70 kg	€142.00
150	120276	6	4-32			1.86 kg	€160.00
150	120278	2	4-32	2	22-54	1.72 kg	€169.00



Installation of Multi Multiple

Example for DN 100 core drill hole and medium pipe outer diameter 15 mm with art. no. 120270



Open the split gasket insert and take out the required segmented plug.



Pull out the ring segment you want to remove and sever it with a cutter.



After cutting the stopper to the required size, reinsert it and the gasket insert can be installed.

MASTER-RING Multiple

V2A stainless steel multiple wall duct gasket inserts for cables and pipes

- Pressure-tight up to 10 m water column
- Rubber thickness 40 mm
- Steel parts and screws made of V2A stainless steel

Art.Gr.
439



Split version



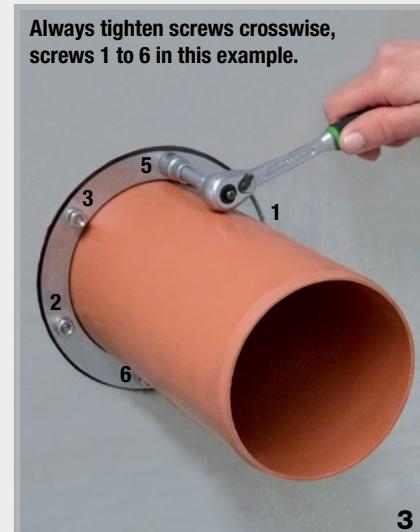
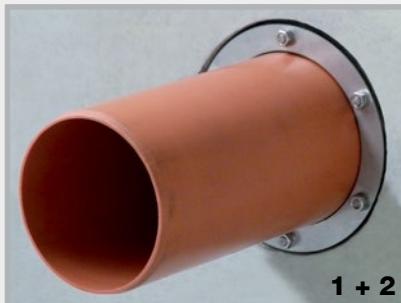
Mounted

Core drill hole Lining pipe FASO / WELLO / DURO Plus	Art. no.	Outer diameter Medium pipe in mm	Weight per pc.	Price per pc. incl. 2 boreholes
50	120515	4 to 20	0.39 kg	€104.00
80	120410	4 to 33 or 40 or 42	0.43 kg	€126.00
100	120415	4 to 33 or 40 or 42 or 50	0.62 kg	€134.00
125	120420	4 to 33 or 40 or 42 or 50	0.93 kg	€175.00
150	120425	4 to 33 or 40 or 42 or 50	1.31 kg	€218.00
	120495	Additional borehole		€13.00

As a basic rule, the technical feasibility of the combination of number and diameter of the media in relation to the minimum diameter of the core drill hole or lining pipe must be checked. Please contact our sales office for assistance.

Tightening the MASTER-RING gasket inserts

1. Insert the gasket insert into the lining pipe or the core drill hole.
2. Push the medium pipe through.
3. Tighten the screws crosswise through one turn. Repeat this process until all screws are tightened with the respective torque. Retighten the screws after 1-2 hours.



Nuts	Maximum torque (for dimensionally stable medium pipes)
M6	5 Nm
M8	10 Nm
M10	15 Nm
M12	20 Nm

FLEX 2000



Plastic, vapour and waterproof sealing compound for waterproofing of pipe and cable bushings below ground level. Also suitable for leakage sealing in case of inflowing water.

Annular gap sealing (tested by MFPA Leipzig)
up to 7.5 m water column

Art.Gr.
450



Art. no.	Description	PU	Secondary packaging	Weight	Price/pc.
120610	FLEX 2000 sealing compound Foil bag 850 g	1 pc.	1 Carton of 20 foil bags	0.88 kg	€52.80
120620	Cartridge applicator with flexible nozzle	1 pc.		1.06 kg	€135.00
120630	Flexible nozzle	1 pc.		0.07 kg	€48.50



FLEX 2000 sealing compound



Cartridge applicator



Flexible nozzle

Technical data

Consistency	Paste-like, non-sagging
Heat resistance	+50°C
Processing temperature	+5°C to +35°C
Usage	Approx. 1.6 kg per litre void
Storage	2 years at 20°C

Substrate

The substrate may be dry, damp or wet. The substrate must be free from grease, tar, oil and loose particles. Suitable substrates are: concrete, brick, mortar, plaster and all other mineral construction materials as well as ceramics, PVC, polyethylene and polypropylene.



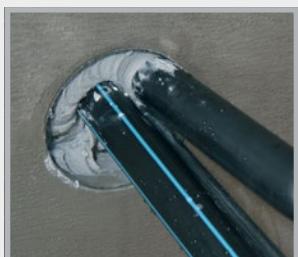
Inflowing water



Injection of FLEX 2000



Filling of the annular gap



No more leakage



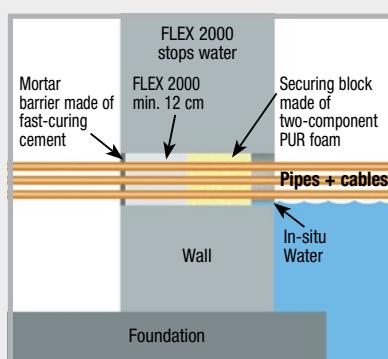
Smooth off excess material
with a filling knife



Skim coat with fast-curing
cement

Application

Prior to application, FLEX 2000 is heated to approx. 35-40°C by placing it in warm water for at least 30 minutes to ensure optimum consistency and workability. Clean the inside of the duct using a suitable brush to remove dust, sand, and any loose particles. Before applying FLEX 2000, a securing block of a two-component PUR foam is applied at a depth of approx. 10 cm. The FLEX 2000 foil bag is then placed in the cartridge applicator and the material is pressed through the flexible nozzle into the duct from back to front so that the resulting layer is at least 12 cm thick. After sealing cable bushings, jiggle the cable slightly and press FLEX 2000 into any voids that form. Always ensure that the cable is free of tension and strain after sealing. Finally, the sealing compound set back approx. 1 cm is pressed in well and smoothed with a metal filler knife. As an additional safeguard, the opening of the duct is closed with fast-curing cement. If a new cable is to be installed later on, the mortar barrier is removed and the cable is pushed through the sealing compound. The duct is subsequently sealed using FLEX 2000.



MASTER-SEAL

Modular seal



- Pre-assembled
- Fast and easy installation
- Tested up to 30 m water column
- Can be retrofitted (all gasket inserts are also separable)

**Art.Gr.
445**



Area of installation of core drill hole in mm Lining pipe FASO / WELLO / DURO Plus	Medium pipe Outer Ø mm from to	Type	Weight	Stainless steel		Galvanised	
				Art. no.	Price/chain	Art. no.	Price/chain
50	11 19	4 x 275	0.08 kg	110250	€27.60	110600	€19.20
50	20 25	4 x 200	0.08 kg	110255	€14.40	110605	€13.60
80	20 33	4 x 350	0.32 kg	110260	€47.20	110610	€34.40
80	34 44	5 x 300	0.30 kg	110265	€40.00	110615	€34.00
80	45 49	6 x 250	0.14 kg	110267	€39.00	110617	€30.00
80	50 55	7 x 200	0.14 kg	110268	€25.20	110618	€23.80
100	27 38	4 x 375	0.50 kg	110270	€60.00	110620	€40.40
100	39 50	6 x 350	0.46 kg	110275	€70.80	110625	€51.60
100	56 64	6 x 300	0.36 kg	110280	€48.00	110630	€40.80
100	65 69	8 x 250	0.19 kg	110281	€52.00	110631	€40.00
100	70 75	9 x 200	0.20 kg	110282	€32.40	110632	€30.60
125	41 44	4 x 475	1.04 kg	110283	€102.80	110633	€67.60
125	45 52	4 x 415	0.96 kg	110284	€72.00	110634	€57.60
125	53 63	5 x 375	0.65 kg	110285	€75.00	110635	€50.50
125	64 78	7 x 350	0.56 kg	110290	€82.60	110640	€60.20
125	79 90	8 x 300	0.48 kg	110295	€64.00	110645	€54.40
125	90 94	11 x 250	0.26 kg	110296	€71.50	110646	€55.00
125	96 100	11 x 200	0.24 kg	110297	€39.60	110647	€37.40
150	58 69	5 x 475	1.30 kg	110298	€128.50	110648	€84.50
150	63 76	5 x 415	1.20 kg	110300	€90.00	110650	€72.00
150	75 82	6 x 375	0.75 kg	110305	€90.00	110655	€60.60
150	88 103	9 x 350	0.68 kg	110310	€106.20	110660	€77.40
150	106 115	10 x 300	0.60 kg	110315	€80.00	110665	€68.00
150	113 118	14 x 250	0.34 kg	110316	€91.00	110666	€70.00
150	120 124	14 x 200	0.31 kg	110317	€50.40	110667	€47.60
200	108 118	7 x 475	1.82 kg	110325	€179.90	110675	€118.30
200	115 122	7 x 415	1.68 kg	110330	€126.00	110680	€100.80
200	125 138	9 x 375	1.12 kg	110335	€135.00	110685	€90.90
200	140 153	13 x 350	1.00 kg	110340	€153.40	110690	€111.80
200	156 165	14 x 300	0.81 kg	110345	€112.00	110695	€95.20
200	164 168	19 x 250	0.46 kg	110346	€123.50	110696	€95.00
200	171 174	19 x 200	0.42 kg	110347	€68.40	110697	€64.60



Place MASTER-SEAL around the medium pipe and seal



Push MASTER-SEAL into the annular gap



Tighten each screw one by one in a circular direction by turning once until all modules are evenly tightened



MASTER-SEAL installation complete

MASTER-SEAL

Modular seal



Art.Gr.
445

Area of installation of core drill hole in mm Lining pipe FASO / WELLO / DURO Plus	Medium pipe Outer Ø mm from to	Type	Weight	Stainless steel		Galvanised	
				Art. no.	Price/chain	Art. no.	Price/chain
250	114 130	6 x 500	3.72 kg	110350	€304.20	110700	€211.20
250	137 158	8 x 575	3.32 kg	110355	€320.80	110705	€208.00
250	159 166	9 x 475	2.34 kg	110360	€231.30	110710	€152.10
250	166 178	7 x 400	2.11 kg	110365	€166.60	110715	€135.10
250	178 185	12 x 375	1.50 kg	110370	€180.00	110720	€121.20
250	182 189	7 x 425	1.75 kg	110371	€181.30	110721	€121.10
250	192 200	17 x 350	1.31 kg	110372	€200.60	110722	€146.20
250	194 202	9 x 325	1.22 kg	110373	€144.90	110723	€95.40
250	208 213	18 x 300	1.04 kg	110374	€144.00	110724	€122.40
300	188 204	10 x 575	4.18 kg	110375	€401.00	110725	€260.00
300	206 217	12 x 475	3.10 kg	110380	€308.40	110730	€202.80
300	215 226	12 x 415	2.88 kg	110385	€216.00	110735	€172.80
300	228 236	15 x 375	1.86 kg	110386	€225.00	110736	€151.50
300	232 242	9 x 425	2.28 kg	110387	€233.10	110737	€155.70
300	244 253	11 x 325	1.49 kg	110388	€177.10	110738	€116.60
300	258 263	22 x 300	1.28 kg	110389	€176.00	110739	€149.60
350	219 231	9 x 500	5.57 kg	110390	€456.30	110740	€316.80
350	239 253	12 x 575	4.99 kg	110395	€481.20	110745	€312.00
350	265 275	14 x 415	3.33 kg	110400	€252.00	110750	€201.60
350	276 286	18 x 375	2.23 kg	110405	€270.00	110755	€181.80
350	314 317	35 x 250	0.84 kg	110408	€227.50	110758	€175.00
400	239 256	10 x 650	9.26 kg	110410	€693.00	110760	€507.00
400	265 274	11 x 500	6.81 kg	110415	€557.70	110765	€387.20
400	314 328	12 x 400	3.62 kg	110420	€285.60	110770	€231.60
400	343 350	15 x 325	2.03 kg	110425	€241.50	110775	€159.00
450	358 370	19 x 475	4.90 kg	110430	€488.30	110780	€321.10
450	366 379	14 x 400	4.23 kg	110435	€333.20	110785	€270.20
450	393 405	17 x 325	2.30 kg	110440	€273.70	110790	€180.20
500	311 326	8 x 600	14.69 kg	110443	€714.40	110793	€679.20
500	340 358	13 x 650	12.04 kg	110445	€900.90	110795	€659.10
500	390 407	18 x 575	7.49 kg	110450	€721.80	110800	€468.00
500	409 419	21 x 475	5.42 kg	110455	€539.70	110805	€354.90
550	390 408	14 x 650	12.96 kg	110460	€970.20	110810	€709.80
550	415 435	15 x 500	9.29 kg	110465	€760.50	110815	€528.00
550	440 457	20 x 575	8.32 kg	110470	€802.00	110820	€520.00
550	457 470	23 x 475	5.93 kg	110475	€591.10	110825	€388.70
600	410 440	10 x 600	18.36 kg	110480	€893.00	110830	€849.00
600	440 458	16 x 650	14.82 kg	110485	€1.108.80	110835	€811.20
600	490 505	22 x 575	9.15 kg	110490	€882.20	110840	€572.00
600	515 528	19 x 400	5.74 kg	110495	€452.20	110845	€366.70

Additional sizes available immediately ex stock

Installation: After insertion of the modular seal and lead-through of the medium pipe, the screws are tightened one by one in a clockwise direction. Give each screw one turn and repeat this procedure several times so the rubber is pressed out uniformly.

Maximum torques

TYPE	200/250/275	3 Nm	500/525	60 Nm	650	85 Nm
	300/325/350/375	15 Nm	575	50 Nm	600	130 Nm
	400/415/425/475	35 Nm				

RONDO Standard

Sealing collars

Reliable sealing against
penetrating water and radon



with test report for
corrugated pipes

Dimensions

Technical details pages 143 – 144

100 m water column

Art.Gr.
400

Art. no.	Type	for pipe outer diameters/mm	Suitable for outer dia. from (mm) to (mm)		PU	Secondary packaging	Weight per pc.	Price per pc.	Also for corrugated pipes
090890	R0 10	for lightning protection round conductors	8	10	1 pc.	Carton of 100 pcs.	0.12 kg	€21.20	
090892	R0 flat	for earthing strap	30x3.5 + 30x3		1 pc.		0.18 kg	€23.40	
090988	R0 EFP	for hexagon fixed earthing terminal			1 pc.	Bag of 25 pcs.	0.04 kg	€7.00	
090900	R0 25		25	25	1 pc.		0.16 kg	€23.50	
090902	R0 32		32	32	1 pc.		0.20 kg	€23.90	
090904	R0 40		40	39	1 pc.		0.24 kg	€24.60	✓
090906	R0 50		50	48	1 pc.		0.26 kg	€25.00	✓
090908	R0 63		63	61	1 pc.		0.28 kg	€25.20	✓
090910	R0 75		75	72	1 pc.		0.34 kg	€25.40	✓
090912	R0 90		90	87	1 pc.		0.38 kg	€26.00	✓
090914	R0 110	Sewage pipe DN 100	110	107	115	1 pc.	Carton of 50 pcs.	0.47 kg	€26.10
090916	R0 125	Sewage pipe DN 125	125	123	130	1 pc.	Carton of 40 pcs.	0.52 kg	€27.90
090918	R0 140		140	137	147	1 pc.		0.54 kg	€30.50
090920	R0 160	Sewage pipe DN 150	160	157	166	1 pc.	Carton of 35 pcs.	0.63 kg	€32.00
090921	R0 170		170	167	177	1 pc.		0.62 kg	€34.10
090922	R0 180		180	177	187	1 pc.		0.66 kg	€37.20
090924	R0 200	Sewage pipe DN 200	200	197	207	1 pc.	Carton of 30 pcs.	0.77 kg	€38.00
090926	R0 225		225	220	230	1 pc.		0.80 kg	€38.50
090928	R0 250	Sewage pipe DN 250	250	245	260	1 pc.		0.88 kg	€39.50
090930	R0 280		280	275	290	1 pc.		0.96 kg	€44.20
090932	R0 315	Sewage pipe DN 300	315	310	324	1 pc.		1.10 kg	€45.40
090934	R0 355		355	350	365	1 pc.		1.22 kg	€54.00
090936	R0 400	Sewage pipe DN 400	400	395	410	1 pc.		1.38 kg	€58.80
090938	R0 450		450	445	460	1 pc.		1.54 kg	€77.70
090940	R0 500	Sewage pipe DN 500	500	495	510	1 pc.		1.68 kg	€91.30
090942	R0 560		560	555	570	1 pc.		1.90 kg	€107.00
090944	R0 630		630	625	640	1 pc.		2.16 kg	€123.00
090946	R0 710		710	705	720	1 pc.		2.40 kg	€153.00

Other sizes are available on request.

Installation note: The sealing collars are even easier to install if placed in warm water beforehand (10 minutes).

RONDO Protect

Sealing collars for use in slurry/liquid manure/silage effluent and biogas facilities and where maximum resistance is required.

National technical approval (abZ):

Z-74.9-198



Dimensions [Technical details pages 143 – 144](#)

100 m water column

Art.Gr.
409

with test report
for corrugated pipes

Art. no.	Type	for pipe outer diameters/mm	Suitable for outer dia. from (mm) to (mm)		PU	Weight per pc.	Price per pc.	Also for corrugated pipes
091225	ROPRO 10	for lightning protection round conductors	8	10	1 pc.	0.12 kg	€32.00	
091226	ROPRO flat	for earthing strap	30x3.5 + 30x3		1 pc.	0.18 kg	€34.00	
091227	ROPRO 25	25	25	25	1 pc.	0.18 kg	€36.00	
091228	ROPRO 32	32	31	32	1 pc.	0.20 kg	€36.00	
091229	ROPRO 40	40	39	42	1 pc.	0.22 kg	€37.00	✓
091230	ROPRO 50	50	48	53	1 pc.	0.26 kg	€38.00	✓
091231	ROPRO 63	63	61	64	1 pc.	0.30 kg	€38.00	✓
091232	ROPRO 75	75	72	80	1 pc.	0.34 kg	€39.00	✓
091233	ROPRO 90	90	87	92	1 pc.	0.38 kg	€39.00	✓
091234	ROPRO 110	Sewage pipe DN 100 110	107	115	1 pc.	0.44 kg	€40.00	✓
091235	ROPRO 125	Sewage pipe DN 125 125	123	130	1 pc.	0.48 kg	€42.00	✓
091236	ROPRO 140	140	137	147	1 pc.	0.54 kg	€46.00	
091237	ROPRO 160	Sewage pipe DN 150 160	157	166	1 pc.	0.60 kg	€48.00	✓
091238	ROPRO 170	170	167	177	1 pc.	0.62 kg	€49.00	
091239	ROPRO 180	180	177	187	1 pc.	0.66 kg	€51.00	
091240	ROPRO 200	Sewage pipe DN 200 200	197	207	1 pc.	0.72 kg	€52.00	✓
091241	ROPRO 225	225	220	230	1 pc.	0.82 kg	€56.00	
091242	ROPRO 250	Sewage pipe DN 250 250	245	260	1 pc.	0.90 kg	€58.00	
091243	ROPRO 280	280	275	290	1 pc.	0.98 kg	€67.00	
091244	ROPRO 315	Sewage pipe DN 300 315	310	324	1 pc.	1.10 kg	€71.00	
091245	ROPRO 355	355	350	365	1 pc.	1.22 kg	€77.00	
091246	ROPRO 400	Sewage pipe DN 400 400	395	410	1 pc.	1.36 kg	€80.00	
091248	ROPRO 450	450	445	460	1 pc.	1.54 kg	€120.00	
091250	ROPRO 500	500	495	510	1 pc.	1.68 kg	€148.00	
091252	ROPRO 560	560	555	570	1 pc.	1.88 kg	€177.00	
091254	ROPRO 630	630	625	640	1 pc.	2.14 kg	€191.00	
091256	ROPRO 710	710	705	720	1 pc.	2.34 kg	€206.00	

Installation note: The sealing collars are even easier to install if placed in warm water beforehand (10 minutes).

RONDO Ecco

The economical sealing collar
for waterproofing of pipes and cables



80 m water column

Art.Gr.
401

Dimensions

Art. no.	Type	Suitable for from to	PU	Secondary packaging	Weight per pc.	Price per pc.
091050	RO Ecco 110	107-115 mm	1 pc.	1 carton of 80 pcs.	0.26 kg	€23.50
091053	RO Ecco 125	122-130 mm	1 pc.	1 carton of 70 pcs.	0.30 kg	€24.70
091056	RO Ecco 160	157-170 mm	1 pc.	1 carton of 60 pcs.	0.36 kg	€27.80
091059	RO Ecco 200	197-210 mm	1 pc.	1 carton of 50 pcs.	0.42 kg	€30.00

RONDO Base

The sealing collar with only
one fastening strap



70 m water column

Art.Gr.
402

Dimensions

Art. no.	Type	for pipe outer diameters/mm	PU	Secondary packaging	Weight per pc.	Price per pc.
090978	RO Base 110	110	1 pc.	1 carton of 25 pcs.	0.18 kg	€22.00
090980	RO Base 125	125	1 pc.	1 carton of 25 pcs.	0.19 kg	€24.00
090984	RO Base 160	160	1 pc.	1 carton of 25 pcs.	0.20 kg	€27.00
090990	RO Base 200	200	1 pc.	1 carton of 25 pcs.	0.27 kg	€30.00

RONDO sealing collars

Water pressure-tight sealing for pipe ducts through concrete parts



RONDO Standard

page 140

- Pressure water-tight up to 100 m water column
- Radon-tight
- Good resistances
- For corrugated pipes with outer diam. of up to 200 mm

Pressure water-tight up to 30 m water column



RONDO Protect

page 141

- Pressure water-tight up to 100 m water column
- DIBt approval for slurry/liquid manure/silage effluent facilities
- Also for agricultural buildings
- Highest resistances
- For corrugated pipes with outer diam. of up to 200 mm

Pressure water-tight up to 30 m water column



RONDO Ecco

page 142

- Pressure water-tight up to 80 m water column
- Radon-tight



RONDO Base

page 142

- Pressure water-tight up to 70 m water column

Wherever pipes or other lines are routed through concrete parts, they must be sealed against the permeation of water and/or gases present, such as methane gas or the radioactive radon gas that is sometimes present in the soil.

The RONDO sealing collars create a cost-effective and easy-to-install solution for sealing penetrations. They are available in all common nominal diameters of pipes and lines as standard.



The RONDO, shortly before placement of concrete. The drainpipes are securely and permanently sealed against rising moisture.

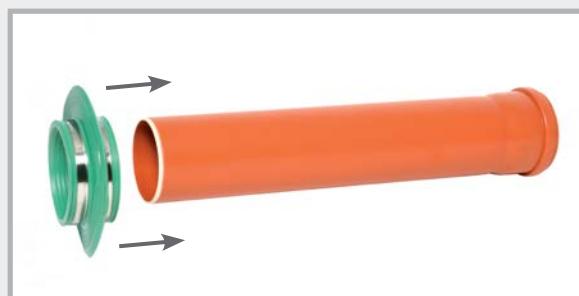
Technical data

	RONDO Standard	RONDO Protect	RONDO Ecco	RONDO Base
Colour	green	red	green	green
Material	TPE	modified TPE	TPE	TPE
Size	10-710 mm	10-710 mm	110-200 mm	110-200 mm
Height of waterstop	4 cm	4 cm	3 cm	1.5 cm
Number of waterstops	1	1	1	2
Bearing width	6 cm	6 cm	4.5 cm	2.5 cm
Pressure test	100 m water column	100 m water column	80 m water column	70 m water column
Resistance				
Diluted acids	✓	✓	✓	✓
Alkalies	✓	✓	✓	✓
Ground water	✓	✓	✓	✓
Radon	✓	✓	✓	✓
Liquid manure	✓	✓	✓	✓
Slurry	✓	✓	✓	✓
Fermentation mash		✓		
Methane gas		✓		
Animal excretions		✓		
Silage effluent		✓		
Diluted sulphuric acid		✓		
Further resistances are available on request				

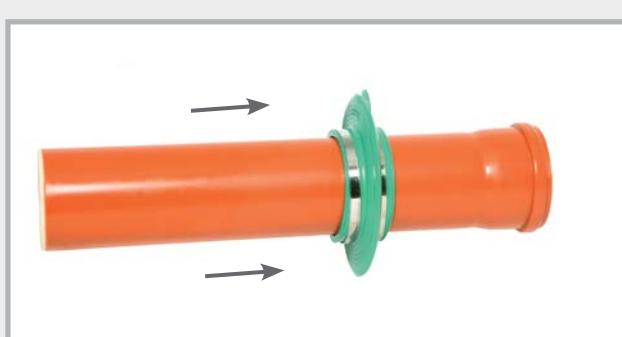
Installation using the example of the RONDO Standard sealing collar



Sewage pipe and RONDO Standard 110



Pushing on the sealing collar



Positioning the sealing collar



Securing by tightening the fastening straps

The surface of the pipe should be cleaned, if dirty.

Pipe bushing systems

Pressure water-tight installation parts for wall and floor slab penetration of sewer pipes



Pipe bushing
UniCut

pages 146 – 147



Pipe bushing
Base / Novo

page 148



Pipe bushing
Special versions

pages 149 – 150

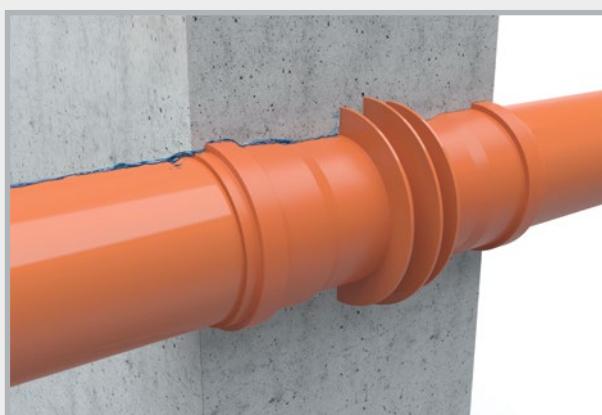


Ground drains
+ Accessories

pages 151 – 152

Sewer pipes are among the most common kinds of pipes to pass through concrete parts.

Our pipe bushing systems offer ready-to-install system solutions for wall and floor slab ducts for the common materials (KG and KG 2000).



Pipe bushing Novo as a pressure water-tight wall duct.

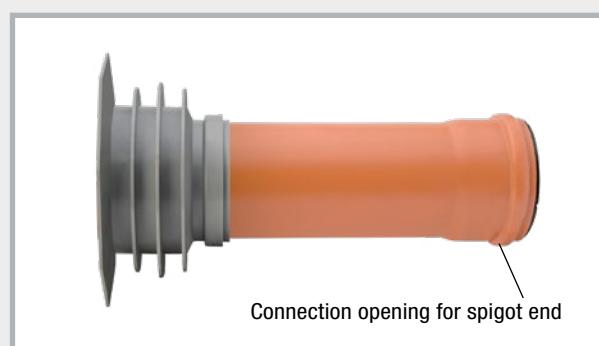
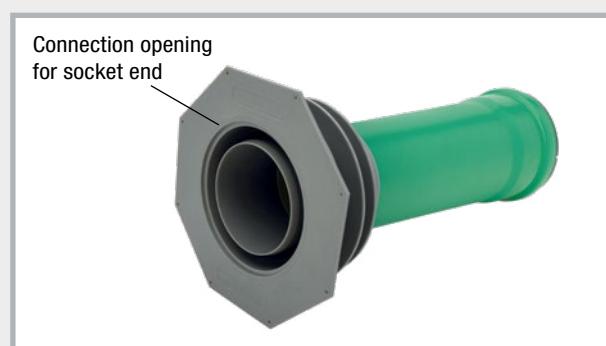
UniCut pipe bushing

prefabricated for the respective wall thickness

- Diameter: 110 mm
- Prefabricated pipe bushing available in the following wall thicknesses: 200 / 240 / 250 / 300 / 350 / 365 / 400 mm
- Pressure water-tight "Novo" waterstop
- Trowel flange for the connection of the outer seal
- Nail holes for fixing to the formwork
- Maintains the flow direction
- Supplied with 2 closure plugs



Art. no.	Description	DN mm	Wall thicknesses	PU	Weight per pc.	Price per pc.
081520	UniCut pipe bushing, KG	110	200 mm	1 pc.	1.01 kg	€27.10
081521	UniCut pipe bushing, KG	110	240 mm	1 pc.	1.06 kg	€27.10
081522	UniCut pipe bushing, KG	110	250 mm	1 pc.	1.07 kg	€27.10
081523	UniCut pipe bushing, KG	110	300 mm	1 pc.	1.13 kg	€27.10
081524	UniCut pipe bushing, KG	110	350 mm	1 pc.	1.19 kg	€27.10
081525	UniCut pipe bushing, KG	110	365 mm	1 pc.	1.20 kg	€27.10
081526	UniCut pipe bushing, KG	110	400 mm	1 pc.	1.24 kg	€27.10
081530	UniCut pipe bushing, KG 2000	110	200 mm	1 pc.	1.12 kg	€30.50
081531	UniCut pipe bushing, KG 2000	110	240 mm	1 pc.	1.19 kg	€30.50
081532	UniCut pipe bushing, KG 2000	110	250 mm	1 pc.	1.20 kg	€30.50
081533	UniCut pipe bushing, KG 2000	110	300 mm	1 pc.	1.28 kg	€30.50
081534	UniCut pipe bushing, KG 2000	110	350 mm	1 pc.	1.36 kg	€30.50
081535	UniCut pipe bushing, KG 2000	110	365 mm	1 pc.	1.38 kg	€30.50
081536	UniCut pipe bushing, KG 2000	110	400 mm	1 pc.	1.44 kg	€30.50



Art. no.	Description	PU	Secondary packaging	Weight per pc.	Price per pc.	
081510	UniCut flange part "SOLO" Ø 110 mm with plug and seal, for on-site connection of KG and KG 2000 pipes Ø 110 mm	1 pc.	Carton of 20 pcs.	0.69 kg	€19.70	

Installation of UniCut pipe bushing



1 Fastening the UniCut pipe bushing



2 Cut the KG or KG 2000 pipe to length:
Wall thickness minus 8.5 cm



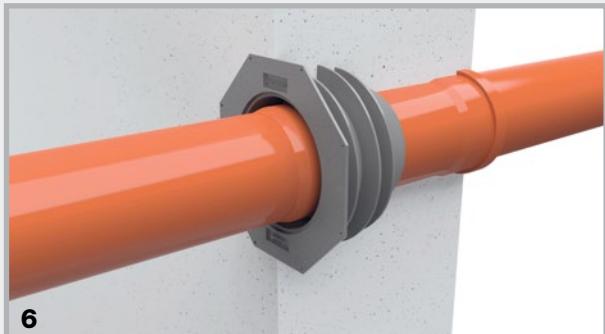
3 Insert the pipe into the UniCut pipe bushing.



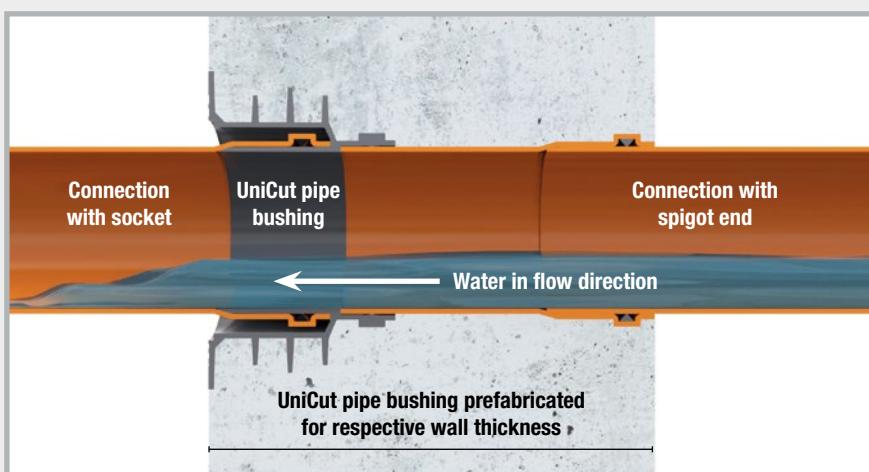
4 Concreting and careful sealing



5 Remove the plugs after concreting



6 The drainpipes in KG or KG 2000 can be inserted on the left into the socket end and on the right into the spigot end.



Function:

When installing the UniCut pipe bushing, the direction of flow of the water is guaranteed.

Sewage pipe bushing systems

Double socket type (DM)



Advantages of the Base and Novo double socket

- Delivered as solid wall version
- Manufactured for corresponding wall thickness
- Incl. 2 plugs as installation aid
- With lip seal
- Radon-tight
- Pre-installed waterstop

KG DM Base type
KG 2000 DM Base type



Pressurised water test up to 70 m water column

KG DM Novo type
KG 2000 DM Novo type



Pressurised water test up to 80 m water column

KG DM type product range

Technical details page 150

Art.Gr.
412

Sewage pipe Ø DN mm	Wall thicknesses							Page 110 Order FIX formwork aid separately
	180 mm	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm	
Novo double socket								
DN 110 Weight/pc. €/pc.	080404 0.76 kg 42.20	080405 0.78 kg 42.20	080350 0.66 kg 39.30	080351 0.67 kg 39.30	080352 0.74 kg 39.30	080353 0.83 kg 39.30	080354 0.85 kg 39.30	
DN 125 Weight/pc. €/pc.	080419 0.95 kg 47.20	080420 0.99 kg 47.20	080355 0.87 kg 43.90	080356 0.90 kg 43.90	080357 1.01 kg 43.90	080358 1.11 kg 43.90	080359 1.19 kg 43.90	
DN 160 Weight/pc. €/pc.	not producible according to DIN 56.30	080433 1.41 kg 56.30	080434 1.50 kg 56.30	080436 1.58 kg 56.30	080438 1.71 kg 56.30	080440 2.02 kg 56.30	080442 2.31 kg 56.30	
DN 200 Weight/pc. €/pc.	not producible according to DIN 78.80	080443 2.14 kg 78.80	080444 2.39 kg 78.80	080445 2.44 kg 78.80	080446 2.74 kg 78.80	080448 2.99 kg 78.80	080450 3.20 kg 78.80	

KG 2000 DM type product range

Art.Gr.
412

KG 2000 Ø DN mm	Wall thicknesses						Page 110 Order FIX formwork aid separately
	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm	
Novo double socket							
DN 110 Weight/pc. €/pc.	080750 0.80 kg 53.10	080800 0.65 kg 49.40	080801 0.67 kg 49.40	080802 0.73 kg 49.40	080803 0.81 kg 49.40	080804 0.86 kg 49.40	
DN 125 Weight/pc. €/pc.	080762 1.07 kg 64.10	080805 0.88 kg 59.60	080806 0.89 kg 59.60	080807 1.02 kg 59.60	080808 1.10 kg 59.60	080809 1.20 kg 59.60	
DN 160 Weight/pc. €/pc.	080774 1.69 kg 84.70	080776 1.45 kg 84.70	080778 1.48 kg 84.70	080780 1.84 kg 84.70	080782 2.21 kg 84.70	080784 2.31 kg 84.70	
DN 200 Weight/pc. €/pc.	080786 2.61 kg 109.70	080788 2.15 kg 109.70	080790 2.24 kg 109.70	080792 3.00 kg 109.70	080794 3.27 kg 109.70	080796 3.49 kg 109.70	

The Base double socket version is available for further wall thicknesses.

Flow direction (FR) type Base + Novo

Sewage pipe bushing
KG FR Base type
KG 2000 FR Base type



Sewage pipe bushing
KG FR Novo type
KG 2000 FR Novo type



The flow direction type is manufactured in one piece for the corresponding wall thickness.

You can also prepare any wall thickness yourself on the building site with a ground drain and socket ring. The FR type facilitates the wastewater flow in one direction.

KG FR type product range

Art.Gr.
414

Sewage pipe Ø DN mm	Wall thicknesses							Page 110 Order FIX formwork aid separately
	180 mm	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm	
Base flow direction								Novo flow direction
DN 110 Weight/pc. €/pc.	090710 0.75 kg 44.70	090713 0.80 kg 44.70	090716 0.90 kg 44.70	090719 0.90 kg 44.70	090722 1.00 kg 44.70	090725 1.10 kg 44.70	090728 1.20 kg 44.70	
DN 125 Weight/pc. €/pc.	090731 1.00 kg 47.80	090734 1.00 kg 47.80	090737 1.10 kg 47.80	090740 1.10 kg 47.80	090743 1.25 kg 47.80	090749 1.45 kg 47.80	090752 1.65 kg 47.80	
DN 160 Weight/pc. €/pc.	not producible according to DIN	not producible according to DIN	090758 1.85 kg 56.30	090761 1.85 kg 56.30	090764 2.05 kg 56.30	090770 2.25 kg 56.30	090773 2.50 kg 56.30	
DN 200 Weight/pc. €/pc.	not producible according to DIN	not producible according to DIN	090779 3.00 kg 78.80	090782 3.20 kg 78.80	090785 3.35 kg 78.80	090788 3.60 kg 78.80	090791 3.70 kg 78.80	

Other wall thicknesses available

KG 2000 FR type product range

Art.Gr.
414

KG 2000 Ø DN mm	Wall thicknesses							Page 110 Order FIX formwork aid separately
	200 mm	240 mm	250 mm	300 mm	365 mm	400 mm		
Base flow direction								Novo flow direction
DN 110 Weight/pc. €/pc.	080820 0.80 kg 49.10	080825 0.85 kg 49.10	080830 0.90 kg 49.10	080835 1.10 kg 49.10	080845 1.30 kg 49.10	080850 1.40 kg 49.10		
DN 125 Weight/pc. €/pc.	080855 1.10 kg 54.30	080860 1.20 kg 54.30	080865 1.20 kg 54.30	080870 1.30 kg 54.30	080880 1.50 kg 54.30	080885 1.60 kg 54.30		
DN 160 Weight/pc. €/pc.	not producible according to DIN	080890 1.80 kg 65.30	080895 2.00 kg 65.30	080905 2.30 kg 65.30	080915 2.60 kg 65.30	080920 2.80 kg 65.30		
DN 200 Weight/pc. €/pc.	not producible according to DIN	080923 3.10 kg 93.80	080925 3.20 kg 93.80	080933 3.20 kg 93.80	080935 3.70 kg 93.80	080945 3.85 kg 93.80		

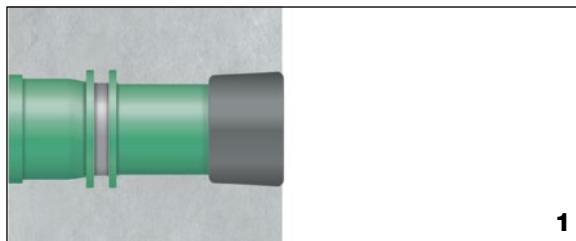
Other wall thicknesses available



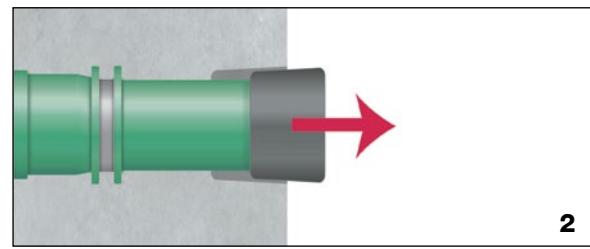
Flow direction (FR) type

Function and technology

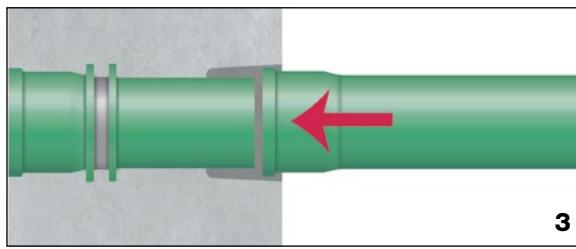
1. KG 2000 flow direction type pipe bushing, concreted into the wall
2. The socket ring is removed before the next pipe is connected.
3. The next pipe is connected. The flow direction of the water is retained.



1



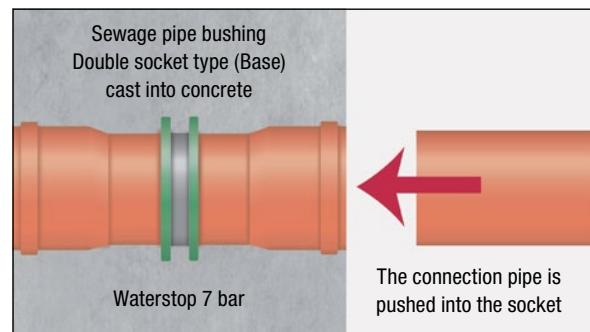
2



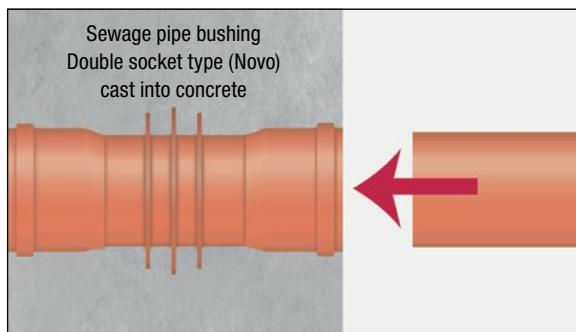
3

KG type Base and Novo double socket

Function and technology



The connection pipe is pushed into the socket



The double socket is cast into concrete. After concreting, the closure plugs are removed and the seals inserted. The next pipe can be connected.

Double socket double wall (DM DW) type

Additional waterstops in the shell area of cavity walls.



Sewage pipe bushing
DM DW type



KG 2000 pipe bushing
DM DW type



Price available on request

Ground drains



KG sewage ground drains Solid wall pipes

KG sewage pipe, 0.5 m long, with waterstop and socket on one end



Art.Gr.
418

Type	Sewage pipe Ø DN mm	Length mm	WITHOUT plug			WITH plug			Novo type DN 110 + 125 mm	Base type DN 160 + 200 mm
			Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.		
DL 110/500	110	500	080366	0.88 kg	€19.00	080366D	0.90 kg	€21.50		
DL 125/500	125	500	080368	1.14 kg	€23.50	080368D	1.17 kg	€26.50		
DL 160/500	160	500	080470	2.03 kg	€35.00	080470D	2.08 kg	€40.00		
DL 200/500	200	500	080475	3.21 kg	€44.70	080475D	3.29 kg	€49.70		

KG 2000 sewage ground drains Solid wall pipes

KG 2000 sewage pipe, 0.5 m long, with waterstop and socket on one end



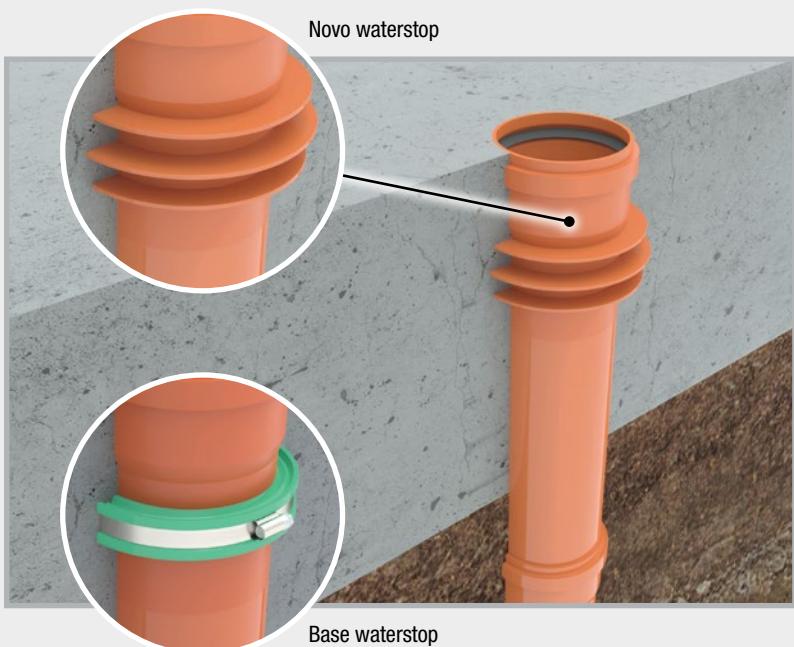
Art.Gr.
418

Type	Sewage pipe Ø DN mm	Length mm	WITHOUT plug			WITH plug			Novo type DN 110 + 125 mm	Base type DN 160 + 200 mm
			Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.		
DL2000 110/500	110	500	080827	0.89 kg	€25.10	080827D	0.91 kg	€27.20		
DL2000 125/500	125	500	080828	1.12 kg	€29.90	080828D	1.15 kg	€32.20		
DL2000 160/500	160	500	080986	2.24 kg	€44.80	080986D	2.29 kg	€49.80		
DL2000 200/500	200	500	080989	3.64 kg	€61.00	080989D	3.72 kg	€66.20		

Function and technology

KG and KG 2000 ground drains are used for floor slab penetrations.

The ground drains are connected to the sewer base lines and concreted in up to the top edge of the floor slab. The transition from the pipe to the concrete is reliably and permanently sealed against pressing water or gases rising from the ground by the "Novo" or "Base" waterstop.



Sewage ground drains with foil flange

Foil flange made of PVC foil 1.5 mm, size: 50 x 50 cm, weldable with hot air gun, bondable with solvent welding agent, resistant to oil and bitumen



KG Novo type
DN 110 + 125 mm



KG Base type
DN 160 + 200 mm



KG Novo type
with plug

KG sewage ground drains with foil flange – solid wall pipes

Sewage pipe, 0.5 m long, with waterstop and socket on one end

Art.Gr.
419

Type	Sewage pipe Ø DN mm	Length mm	WITHOUT plug			WITH plug		
			Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.
DL 110/500 FFL	110	500	080451	1.52 kg	€51.00	080451D	1.54 kg	€53.00
DL 125/500 FFL	125	500	080452	1.81 kg	€59.00	080452D	1.84 kg	€62.00
DL 160/500 FFL	160	500	080454	2.51 kg	€71.00	080454D	2.56 kg	€75.00
DL 200/500 FFL	200	500	080456	4.43 kg	€89.00	080456D	4.51 kg	€94.00



KG Novo 2000 type
DN 110 + 125 mm



KG Base 2000 type
DN 160 + 200 mm



KG Novo 2000 type
with plug

KG 2000 ground drains with foil flange

KG 2000 pipe, 0.5 m long, with waterstop and socket on one end

Art.Gr.
419

Type	Sewage pipe Ø DN mm	Length mm	WITHOUT plug			WITH plug		
			Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.
DL2000 110/500 FFL	110	500	080992	1.52 kg	€60.00	080992D	1.54 kg	€62.00
DL2000 125/500 FFL	125	500	080994	1.96 kg	€68.00	080994D	1.99 kg	€71.00
DL2000 160/500 FFL	160	500	080996	2.70 kg	€83.00	080996D	2.75 kg	€87.00
DL2000 200/500 FFL	200	500	080998	4.23 kg	€102.00	080998D	4.31 kg	€107.00

For fixing the foil flange to the component, we recommend the POWER swelling tape adhesive (art. no. 010052) on page 12 of the complete catalogue.



LIGHTNING PROTECTION



Earth conductors

pages 154 – 155



Connectors

pages 156 – 161



Fixed earthing terminals, wall bushings + accessories

pages 162 – 173

Earth conductors

Dimensions and materials according to DIN EN 62561-2

Earthing straps

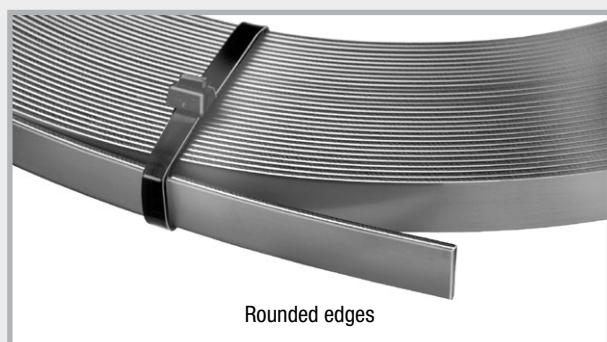
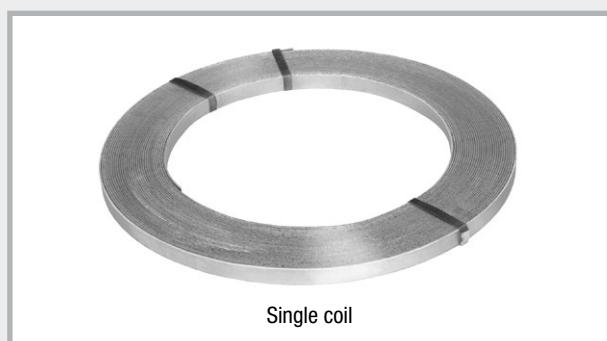
Galvanised steel

Art.Gr.
500

Art. no.	Size	Material	PU	Secondary packaging	Price
100014	30 x 3.5 mm	Galvanised steel Z 500	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls	Current price available on request
100016	30 x 3.5 mm	Galvanised steel Z 500	1 roll of 50 kg = approx. 60 m	1 pallet = 20 rolls	Current price available on request
100022	40 x 4.0 mm	Galvanised steel Z 500	1 roll of 50 kg = approx. 39 m	1 pallet = 20 rolls	Current price available on request
100024	40 x 5.0 mm	Galvanised steel Z 500	1 roll of 50 kg = approx. 32 m	1 pallet = 20 rolls	Current price available on request

Stainless steel

Art. no.	Size	Material	PU	Secondary packaging	Price
100028	30 x 3.5 mm	V2A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls	Current price available on request
100031	30 x 3.5 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 30 m	1 pallet = 40 rolls	Current price available on request
100032	30 x 3.5 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 60 m	1 pallet = 20 rolls	Current price available on request
100035	40 x 4.0 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 39 m	1 pallet = 20 rolls	Current price available on request



Round wires



Single coil, galvanised

Single coil
Stainless steel standardSingle coil
Stainless steel SUPER-SOFTSingle coil
Aluminium round wireArt.Gr.
505

Galvanised steel

Art. no.	Size	Material	PU	Secondary packaging	Price
100041	Ø 10 mm	Galvanised steel Z 350	1 roll of 25 kg = approx. 40.5 m	1 pallet = 40 rolls	Current price available on request
100042	Ø 10 mm	Galvanised steel Z 350	1 roll of 50 kg = approx. 81 m	1 pallet = 20 rolls	Current price available on request

Stainless steel standard

Art. no.	Size	Material	PU	Secondary packaging	Price
100051	Ø 10 mm	V2A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 40.5 m	1 pallet = 20 rolls	Current price available on request
100055	Ø 10 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 25 kg = approx. 40.5 m	1 pallet = 20 rolls	Current price available on request
100056	Ø 10 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 50 kg = approx. 81 m	1 pallet = 10 rolls	Current price available on request
100062	Ø 10 mm	V4A stainless steel according to DIN EN 62561-2	1 roll of 31 kg = approx. 50 m	1 pallet = 16 rolls	Current price available on request

Stainless steel SUPER-SOFT

A special manufacturing procedure ensures uniformly soft quality of the wire.

SUPER-SOFT can be unrolled very easily and lies flat without undulation.

Art.Gr.
508

Art. no.	Size	Material	PU	Secondary packaging	Price
100061	Ø 10 mm	SUPER-SOFT V4A according to DIN EN 62561-2, inner diameter 900 mm	1 roll of 25 kg = approx. 40.5 m	1 pallet = 40 rolls	Current price available on request

Aluminium

Art.Gr.
509

Art. no.	Size	Material	PU	Secondary packaging	Price
100080	Ø 8 mm	ALU AlMgSi soft-twistable	1 roll of 20 kg = approx. 148 m	1 pallet = 25 rolls	Current price available on request

Multi-purpose connecting clamps

with mushroom head bolt and protection against twisting

**Art.Gr.
511**


Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100147	Galvanised steel , 2-part, round/round, Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	5.05 kg	€1.37
100149	V2A stainless steel , 2-part, round/round Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.45 kg	€3.30
100150	V4A stainless steel , 2-part, round/round Clamping range: Round conductor Ø 8 + 10 mm, with M10 mushroom head bolt and protection against twisting	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.50 kg	€4.30

Multi-purpose connecting clamps

with thread in lower part

**Art.Gr.
511**


Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100157	Galvanised steel , 2-part, round/round, Clamping range: Ø 8 + 10 mm, M10 screw, thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	4.45 kg	€1.55
100159	V4A stainless steel , 2-part, round/round Clamping range: Ø 8 + 10 mm, M10 screw, thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	3.75 kg	€4.00
100153	Aluminium , 2-part, round/round, Clamping range: Ø 8+ 10 mm, NIRO M10 screw, Thread in lower part	1 carton of 50 pcs.	1 pallet = 5600 pcs.	2.60 kg	€2.30

MAXI multi-purpose connecting clamp

for connection of round conductors to the reinforcement and conductive connection of steel reinforcement with up to Ø 25 mm

**Art.Gr.
511**


Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100148	Galvanised steel , round/round, Round conductor Ø 8-16 mm / Ø 15-25 mm, with mushroom head bolt and protection against twisting	1 carton of 25 pcs.	1 pallet = 1000 pcs.	11.10 kg	€7.15

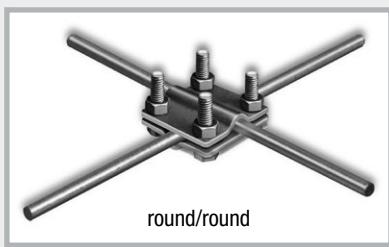
Stainless steel cross connectors round/round

Universal for flat/flat, flat/round and round/round

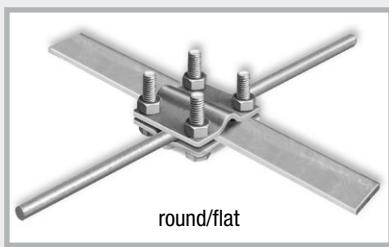
Clamping range: round conductor Ø 8 + 10 mm, flat conductor up to 30 mm

Art.Gr.
512

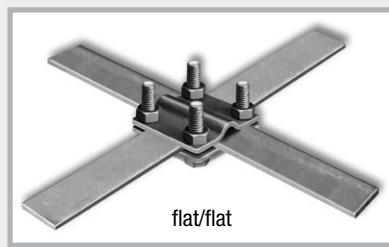
Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100143	V4A stainless steel , 2-part, round/round universal, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.55 kg	€7.55
100145	V4A stainless steel , 2-part, round/round universal, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.90 kg	€6.30



round/round



round/flat

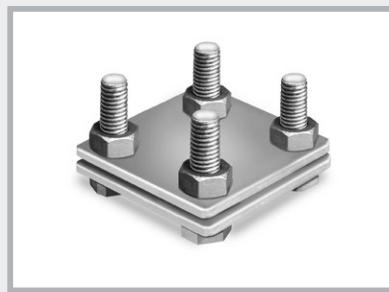


flat/flat

Galvanised cross connectors flat/flat

Clamping range: flat conductor up to 30 mm

Art.Gr.
512



Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100100	Galvanised steel , 2-part, flat/flat, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.75 kg	€2.95
100106	Galvanised steel , 2-part, flat/flat, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	7.65 kg	€1.95

Galvanised cross connectors flat/round

Clamping range:

round conductor Ø 8 + 10 mm,

flat conductor up to 30 mm

Art.Gr.
512



Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100115	Galvanised steel , 2-part, flat/round, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.80 kg	€2.95
100121	Galvanised steel , 2-part, flat/round, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	7.80 kg	€2.10

Galvanised cross connector (for flat conductors up to 30 mm) round/round

Universal for flat/flat, flat/round and round/round

Clamping range: round conductor Ø 8 + 10 mm, flat conductor 30 mm

Art.Gr.
512

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100127	Galvanised steel , 2-part, round/round, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.95 kg	€3.00
100130	Galvanised steel , 3-part, round/round, heavy duty version, M8 screws With intermediate plate	1 carton of 50 pcs.	1 pallet = 3200 pcs.	14.65 kg	€4.00
100133	Galvanised steel , 2-part, round/round, light version, M6 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	8.00 kg	€2.25



Without intermediate plate



With intermediate plate



Installation

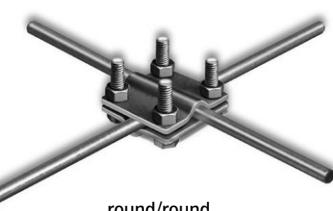
Galvanised cross connector (for flat conductors up to 40 mm) round/round

Universal for flat/flat, flat/round and round/round

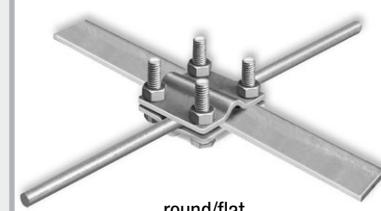
Clamping range: round conductor Ø 8 + 10 mm, flat conductor 30 + 40 mm

Art.Gr.
512

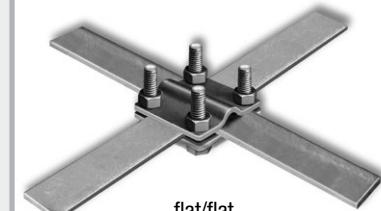
Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100129	Galvanised steel , 2-part, round/round, heavy duty version, M8 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	17.60 kg	€4.95



round/round



round/flat



flat/flat

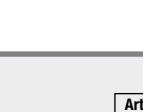
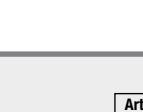
Connecting clamps for flat conductors

Art.Gr. 518

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.	Art. no. 100250 Art. no. 100251
100250	Galvanised steel , M10 screw, flat conductors up to 30 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 4000 pcs.	6.95 kg	€2.20	
100251	Bright steel , M10 screw, flat conductors up to 30 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 4000 pcs.	6.45 kg	€2.10	
100253	Galvanised steel , M10 screw, flat conductors up to 40 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.05 kg	€2.25	
100252	V4A stainless steel , M10 screw flat conductors up to 40 mm and constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.25 kg	€5.80	

Connecting clamps for flat and round conductors

Art.Gr. 518

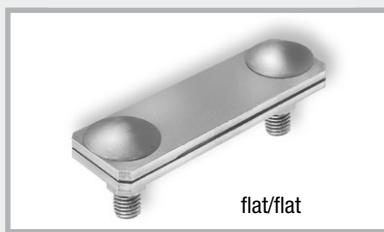
Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.	Art. no. 100255 Art. no. 100257
100255	Galvanised steel , M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.30 kg	€2.95	
100257	V4A stainless steel , M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	8.05 kg	€8.90	
100146	Universal connecting clamp with pressure plate , Galvanised steel , M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	7.55 kg	€3.25	
100254	Universal connecting clamp with pressure plate , V4A stainless steel , M10 screw, for flat conductors up to 30 mm, Round conductor Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.40 kg	€7.90	

Connecting clamps for round conductors

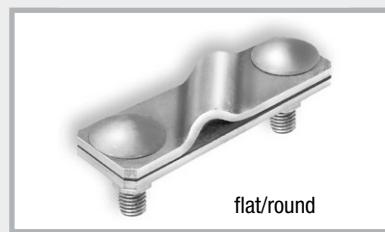
Art.Gr. 518

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.	Art. no. 100258 Art. no. 100259 Art. no. 100260 Art. no. 100261
100258	Galvanised steel , M10 screw, for round connector Ø 6-10 mm, Constructional steel Ø 6-10 mm	1 carton of 50 pcs.	1 pallet = 4000 pcs.	5.00 kg	€1.60	
100259	Galvanised steel , M10 screw, for round conductors Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.85 kg	€2.30	
100261	Bright steel , M10 screw, for round conductors Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.60 kg	€2.20	
100260	V4A stainless steel , M10 screw, for round conductors Ø 8 + 10 mm, Constructional steel Ø 6-22 mm	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.10 kg	€5.80	

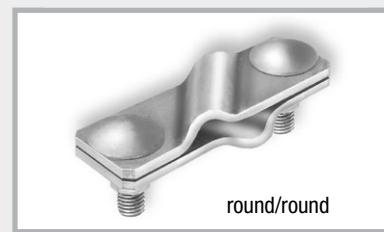
Double clamps



flat/flat



flat/round



round/round

Stainless steel double clamps

for earthing strap up to 40 mm width and round conductors Ø 8 + 10 mm

Art.Gr.
513

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100273	V4A stainless steel , 2-part, flat/flat, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.80 kg	€7.20
100279	V4A stainless steel , 2-part, flat/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.35 kg	€7.20
100282	V2A stainless steel , 2-part, round/round heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.55 kg	€5.60
100285	V4A stainless steel , 2-part, round/round heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	9.35 kg	€7.40

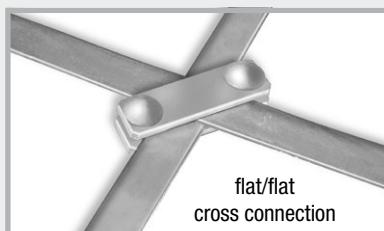
Galvanised double clamps

for earthing strap up to 40 mm width and round conductors Ø 8 + 10 mm

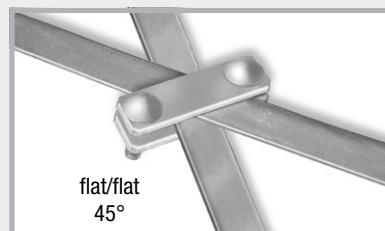
Art.Gr.
513

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100220	Galvanised steel , 2-part, flat/flat, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	12.15 kg	€2.65
100225	Galvanised steel , 2-part, flat/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	11.60 kg	€2.65
100230	Galvanised steel , 2-part, round/round, heavy duty version, M10 screws	1 carton of 50 pcs.	1 pallet = 3200 pcs.	11.70 kg	€2.70

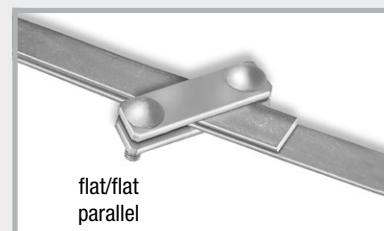
Possible clamping connections



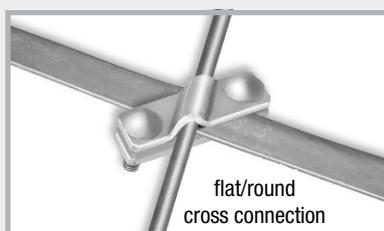
flat/flat
cross connection



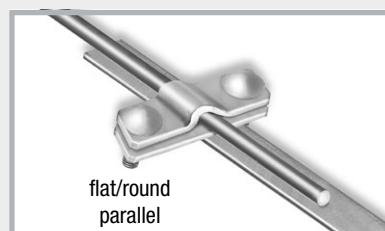
flat/flat
45°



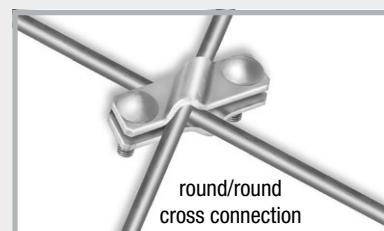
flat/flat
parallel



flat/round
cross connection



flat/round
parallel



round/round
cross connection

Single clamps

Art.Gr.
514

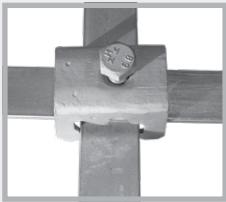
Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100163	Galvanised steel , 1 M10 screw, for flat conductors up to 30 mm and round conductors Ø 8+ 10 mm, for T, cross and parallel connections	1 carton of 50 pcs.	1 pallet = 3200 pcs.	6.40 kg	€2.20
100162	V4A stainless steel , 1 M10 screw, for flat conductors up to 30 mm and round conductors Ø 8+ 10 mm, for T, cross and parallel connections	1 carton of 50 pcs.	1 pallet = 3200 pcs.	5.25 kg	€6.75



Single clamp



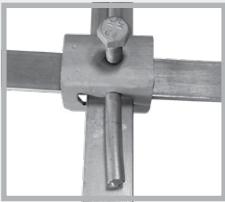
flat/flat parallel connection



flat/flat cross connection



flat/round parallel connection



flat/flat/round connection



Parallel connectors

Art.Gr.
514

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100240	Galvanised steel , 1 M10 screw, 2-part, for round conductors Ø 8 + 10 mm	1 carton of 50 pcs.	1 pallet = 5600 pcs.	7.35 kg	€2.00
100243	V4A stainless steel , 1 M10 screw, 2-part, for round conductors Ø 8 + 10 mm	1 carton of 50 pcs.	1 pallet = 5600 pcs.	6.05 kg	€5.95

Wedge connector

Art.Gr.
514

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.
100160	Galvanised steel , for round conductors Ø 10 mm and flat conductors up to 40 mm, with lock-in position in the wedge	1 carton of 50 pcs.	1 pallet = 3200 pcs.	10.90 kg	€2.40

Art.Gr.
519

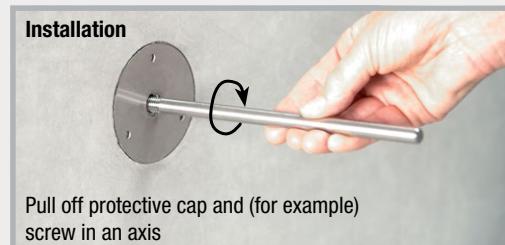
Fixed earthing terminal M10/M12

to connect the equipotential bonding conductors
to the ring electrode, reinforcement and
lightning protection system

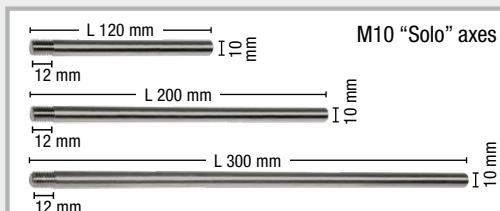


Art. no.	Description	PU	Weight per carton	Price per pc.	
100187	Fixed earthing terminal M10/M12, V4A stainless steel, Ø 80 mm; without axis, with yellow protective cap, connection M10 + M12	1 carton of 10 pcs.	1.60 kg	€13.95	
100202	Fixed earthing terminal M10/M12, V4A stainless steel, Ø 80 mm; with mounted, galvanised axis 200 mm, total length 230 mm, with yellow protective cap	1 carton of 10 pcs.	2.90 kg	€18.40	
100204	Fixed earthing terminal M10/M12, V4A stainless steel, Ø 80 mm; with mounted, galvanised axis 120 mm, total length 160 mm, with yellow protective cap	1 carton of 10 pcs.	2.60 kg	€18.35	
100203	Fixed earthing terminal M10/M12, V4A Edelstahl, Ø 80 mm; with mounted stainless steel axis 200 mm, total length 230 mm, with yellow protective cap	1 carton of 10 pcs.	2.90 kg	€22.00	
100200	Fixed earthing terminal M10/M12, V4A stainless steel, Ø 80 mm; with mounted A2 multi-purpose connecting clamp, with yellow protective cap	1 carton of 10 pcs.	2.40 kg	€17.45	

Installation



M10 "Solo" axes for fixed earthing terminal M10/M12

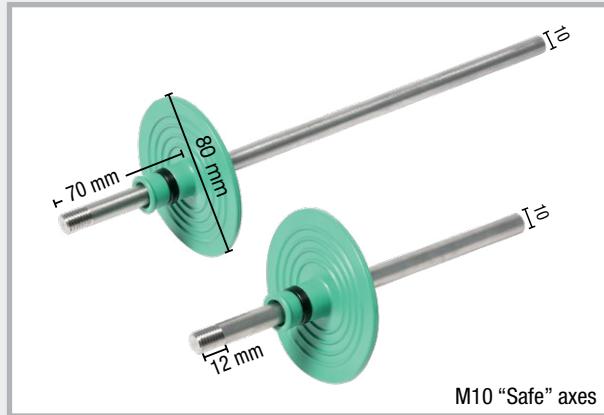
Art.Gr.
521

Art. no.	Description	PU	Weight/carton	Price/pc.
100256	galvanised, length 120 mm	1 carton of 50 pcs.	3.50 kg	€4.40
100183	galvanised, length 200 mm	1 carton of 50 pcs.	6.00 kg	€4.40
100185	galvanised, length 300 mm	1 carton of 50 pcs.	9.50 kg	€5.65
100184	V4A stainless steel, length 200 mm	1 carton of 50 pcs.	6.00 kg	€8.00
100186	V4A stainless steel, length 300 mm	1 carton of 50 pcs.	9.00 kg	€13.30

M10 "Safe" axes for pressure water-tight fixed earthing terminal M10/M12



Art.Gr.
521

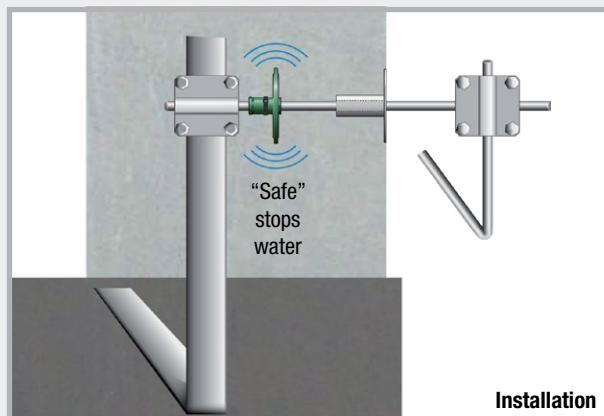


M10 "Safe" axes

Art. no.	Description	PU	Weight/pc.	Price/pc.
100179	V4A stainless steel, length 200 mm	1 pc.	0.15 kg	€15.90
100180	V4A stainless steel, length 300 mm	1 pc.	0.21 kg	€22.70



Fixed earthing terminal with "Safe" axis



Installation

Cross clamps for fixed earthing terminals M10/M12

Art.Gr.
522

Art. no.	Description	PU	Weight per carton	Price per pc.	
100188	Cross clamp for fixed earthing terminal M10/M12, galvanised, M10 thread, Thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	3.80 kg	€12.15	Art. no. 100188 Art. no. 100189  Thread length 70 mm M10
100189	Cross clamp for fixed earthing terminal M10/M12, V4A stainless steel, M10 thread, Thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	3.20 kg	€24.50	Installation Fixed earthing terminal with screwed in cross clamp. Round and flat conductors can be connected.

M10 “Safe” wall bushings with pre-assembled fixed earthing terminals

The M10 wall bushings are pre-assembled and supplied in the exact wall thickness.

Time-consuming adjustments are not necessary.

Fixed earthing terminal: V4A stainless steel, connection axes 10 mm: stainless steel

Art.Gr.
520

Wall thickness	Art. no.	Weight/pc.	Price/pc.	
200 mm	100394	0.42 kg	€49.20	
240 mm	100396	0.45 kg	€50.80	
250 mm	100398	0.45 kg	€50.90	
300 mm	100400	0.48 kg	€52.15	

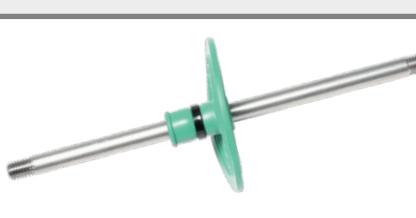


M10 connection axis “Safe” for wall bushings

Stainless steel, diameter 10 mm, M10 thread at both ends, length of thread 12 mm

Art.Gr.
521

Wall thickness	Art. no.	Weight/pc.	Price/pc.	
200 mm	100360	0.10 kg	€15.90	
240 mm	100365	0.13 kg	€18.00	
250 mm	100370	0.13 kg	€18.20	
300 mm	100375	0.16 kg	€19.90	



NEW! Wall bushing, flexible

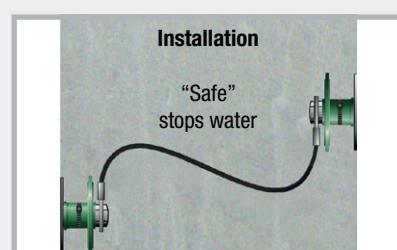
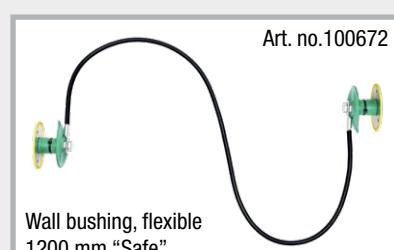
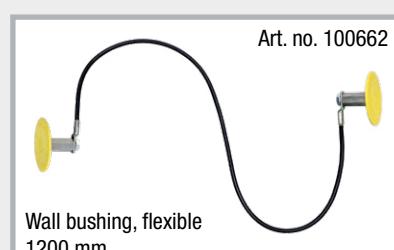


Flexible wall bushing M10 for vertically and horizontally offset positioning of earthing

connections, fixed earthing terminal in V4A stainless steel, fine-wired copper cable 25 mm²

Art.Gr.
535

Art. no.	Description	PU	Weight per pc.	Price per pc.
100660	Wall bushing, flexible 600 mm, 2 x fixed earthing terminal with connecting clamp 1 x sheathed copper cable, length 600 mm	1 pc.	0.54 kg	€59.00
100662	Wall bushing, flexible 1200 mm, 2 x fixed earthing terminal with connecting clamp 1 x sheathed copper cable, length 1200 mm	1 pc.	0.71 kg	€69.00
100670	Wall bushing, flexible 600 mm “Safe”, sealed pressure water-tight with RONDO EFP, 2 x fixed earthing terminal with connecting clamp and RONDO EFP 1 x sheathed copper cable, length 600 mm	1 pc.	0.62 kg	€72.00
100672	Wall bushing, flexible 1200 mm “Safe”, sealed pressure water-tight with RONDO EFP, 2 x fixed earthing terminal with connecting clamp and RONDO EFP 1 x sheathed copper cable, length 1200 mm	1 pc.	0.79 kg	€82.00



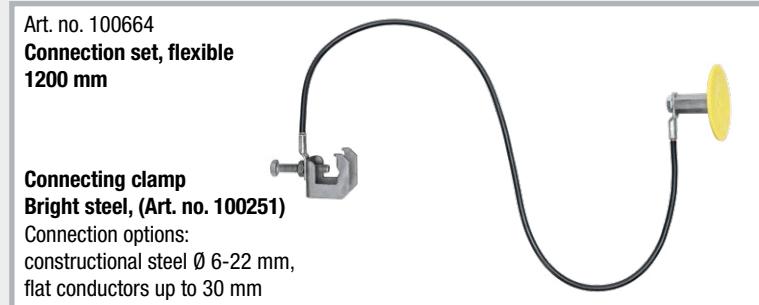


NEW! Connection set, flexible

as a flexible connection to earthing systems or reinforcement bars, with connecting clamps, ready assembled and mounted, fixed earthing terminal M10/M12 in V4A stainless steel, fine-wired copper cable 25 mm²

Art.Gr.
535

Art. no.	Description	PU	Weight/pc.	Price/pc.
100663	Connection set, flexible 600 mm with flexible connecting clamp, 1 x connecting clamp (Art. no. 100251) 1 x fixed earthing terminal M10/M12 1 x sheathed copper cable, length 600 mm	1 pc.	0.31 kg	€50.00
100664	Connection set, flexible 1200 mm with flexible connecting clamp, 1 x connecting clamp (Art. no. 100251) 1 x fixed earthing terminal M10/M12 1 x sheathed copper cable, length 1200 mm	1 pc.	0.48 kg	€60.00



Fixed earthing terminal M12

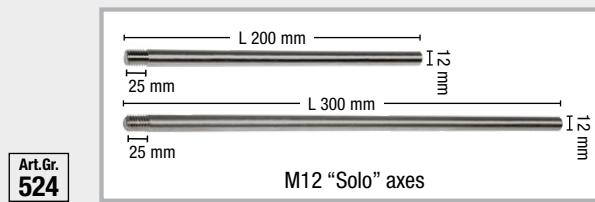
to connect the equipotential bonding conductors to the ring earth electrode, reinforcement and lightning protection system

Art.Gr.
523



Art. no.	Description	PU	Weight per carton	Price per pc.	
100300	Fixed earthing terminal M12, V4A stainless steel, with yellow protective cap, Connection M12	1 carton of 10 pcs.	2.00 kg	€24.50	
100304	Fixed earthing terminal M12 "Safe" with yellow protective cap and waterstop, Connection M12	1 carton of 10 pcs.	2.40 kg	€33.15	
100308	Connecting plate 40 x 4 mm, incl. screw M12 x 25	1 carton of 10 pcs.	1.90 kg	€5.00	
100312	Fixed earthing terminal M12 with connecting plate and yellow protective cap, Connection M12	1 carton of 10 pcs.	3.90 kg	€29.50	

M12 "Solo" axes for fixed earthing terminal



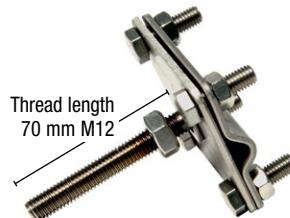
Art. no.	Description	PU	Weight/carton	Price/pc.
101174	V4A stainless steel, length 200 mm	1 carton of 50 pcs.	9.00 kg	€11.10
101176	V4A stainless steel, length 300 mm	1 carton of 50 pcs.	13.00 kg	€13.50

Cross clamps for fixed earthing terminals M12

Art.Gr. 525

Art. no.	Description	PU	Weight/carton	Price/pc.
100460	Cross clamp for fixed earthing terminal M12, galvanised, M12 thread, thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	4.20 kg	€13.90
100462	Cross clamp for fixed earthing terminal M12, V4A stainless steel, M12 thread, thread length 70 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	3.45 kg	€21.10
100464	Cross clamp for fixed earthing terminal M12, V4A stainless steel M12 thread, thread length 200 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 carton of 10 pcs.	4.50 kg	€28.70

Art. no. 100460 + 100462



Art. no. 100464



NEW! M12 wall bushings



The M12 wall bushings have a solid 25 mm conductive core and are pre-assembled and supplied in the exact wall thickness. Time-consuming adjustments are not necessary.

Art.Gr.
526



M12 wall bushings
Type solo

Water pressure-tight wall bushing;
M12 threaded connection on both sides;
incl. nail adapter for fastening to the formwork



M12 wall bushings
Type connect

Water pressure-tight wall bushing; M12 threaded connection on both sides with additional connection plate for concrete-laid earthing conductors;
incl. nail adapter for fastening to the formwork

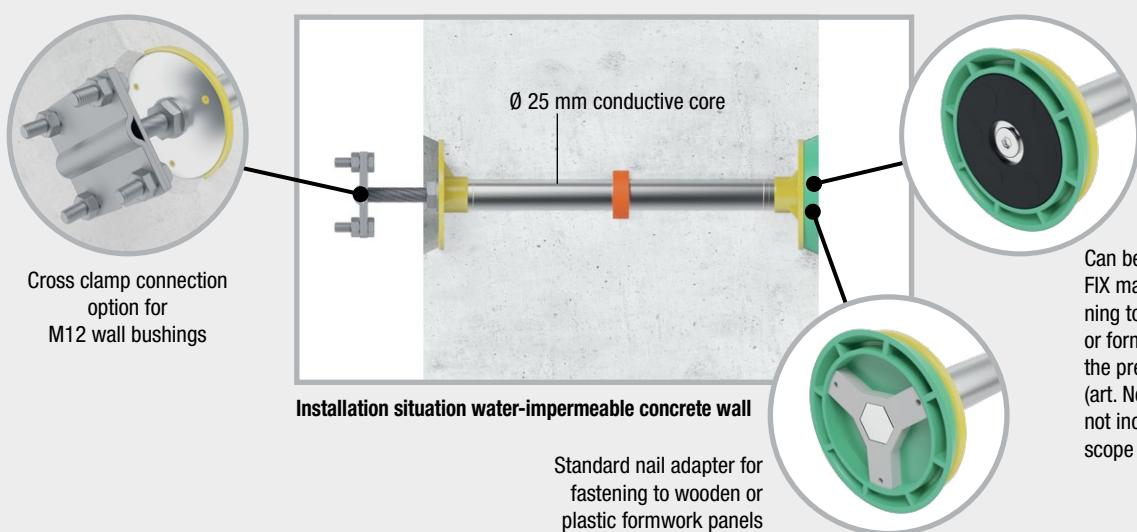


M12 wall bushings
Type iso

Water pressure-tight, insulated wall bushing;
M12 threaded connection on both sides;
incl. nail adapter for fastening to the formwork

M12 wall bushings									
Wall thickness mm	Type solo			Type connect			Type iso		
	Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.	Art. no.	Weight per pc.	Price per pc.
70	100366	0.42 kg	€60.00	100366C	0.52 kg	€66.00	100366I	0.52 kg	€68.00
80	100367	0.47 kg	€64.00	100367C	0.57 kg	€70.00	100367I	0.57 kg	€72.00
100	100368	0.52 kg	€72.00	100368C	0.62 kg	€79.00	100368I	0.62 kg	€80.00
120	100369	0.60 kg	€74.00	100369C	0.70 kg	€80.00	100369I	0.70 kg	€82.00
150	100371	0.72 kg	€76.00	100371C	0.82 kg	€83.00	100371I	0.82 kg	€85.00
200	100372	0.93 kg	€79.00	100372C	1.03 kg	€87.00	100372I	1.03 kg	€90.00
240	100373	1.09 kg	€82.00	100373C	1.19 kg	€90.00	100373I	1.19 kg	€94.00
250	100374	1.14 kg	€83.00	100374C	1.24 kg	€91.00	100374I	1.24 kg	€95.00
300	100376	1.34 kg	€87.00	100376C	1.44 kg	€95.00	100376I	1.44 kg	€100.00

Art. no.	Description	PU	Weight	Price/pc.
100377	Cross clamp for fixed earthing terminal M12, V4A stainless steel, M12 thread, thread length 70 mm, System component for wall bushings solo, connect and iso	1 pc.	0.30 kg	€39.00



Fixed earthing terminal M16 and accessories

to connect the equipotential bonding conductors to the foundation earth electrode, reinforcement and lightning protection system

Art. no.	Description	PU	Weight per pc.	Price per pc.	
100455	Fixed earthing terminal M16, V4A stainless steel, without axis, with yellow protective cap, Connection M16	Art.Gr. 527	1 carton of 10 pcs.	1.70 kg per carton	€23.90
100461	Fixed earthing terminal M16, V4A stainless steel, with flexible connection conductor, Connection conductor CU/SN 95 mm², Conductor length 400 mm	Art.Gr. 527	1 pc.	0.66 kg	€99.00
100458	Cross clamp for fixed earthing terminal M16, VA4 stainless steel, M16 thread, Thread length 30 mm, for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	Art.Gr. 528	1 carton of 10 pcs.	3.10 kg per carton	€24.00

Wall bushings (N)

For subsequent installation of earthing conductors in borehole Ø 14 mm or distance tube. Threaded rod with fixed/loose flange made of V4A stainless steel, connecting clamp and nuts made of galvanised steel.

Art.Gr. 534

Wall thicknesses	Art. no.	PU	Weight per pc.	Price per set	Inside connection options: Round conductors with pre-installed multi-purpose connecting clamp; flat conductors with double clamp page 160: This clamp can be installed in place of the multi-purpose connecting clamp at the construction site.	Inside connection
100-300 mm	100310	1 set	0.66 kg	€47.00		
300-500 mm	100315	1 set	0.80 kg	€49.00		
Description		Art. no.	PU	Weight/pc.	Price/pc.	
Connecting-clamp for wall bushing (N), galvanised Connection: Threaded rod on multi-purpose connecting clamp, M10 screw, for round conductors 8-10 mm, with borehole Ø 13 mm		100181	1 pc.	0.14 kg	€5.15	

Gasket insert for round conductors, core drill hole 50 mm

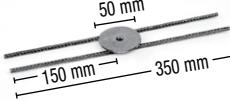
Pressure water-tight lead-in with the MASTER-RING gasket insert

Art.Gr. 440

Art. no.	Description	PU	Weight/pc.	Price/pc.	
120080	Gasket insert for round conductors 8 +10 mm, Core drill hole Ø 50 mm, Medium pipe 6-12 mm	1 pc.	0.38 kg	€54.00	Discount according to product group 4

Accessories for fixed earthing terminal

Art.Gr.
529

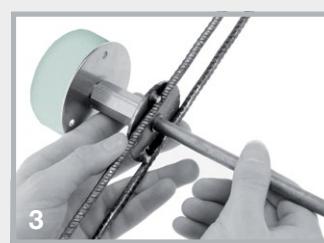
Art. no.	Description	PU	Weight per pc.	Price per pc.	
100198	Plastic foam for fixed earthing terminal, self-adhesive on one side, Ø 76 mm, thickness 20 mm	1 bag of 10 pcs.	0.08 kg	€1.50	
100196	Fixing spider for fixed earthing terminal, steel/bright	1 pc.	0.12 kg	€9.70	



Remove protective cap of fixed earthing terminal



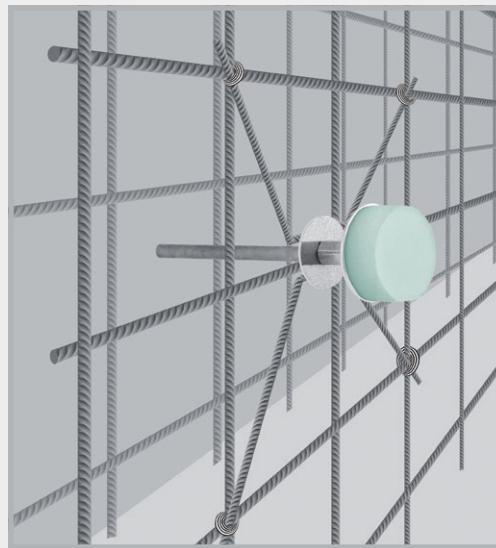
Stick on plastic foam



Screw axis through the fixing spider and fasten fixed earthing terminal



Installation complete



Fixed earthing terminal with fixing spider on the reinforcement

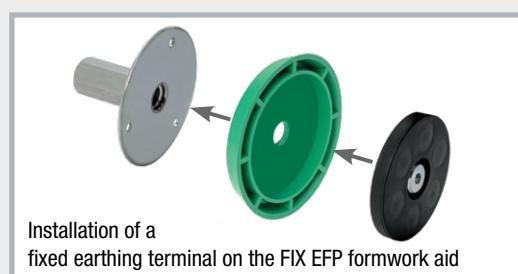
FIX formwork aid

Fastening systems
for fixed earthing terminals in precast concrete plants

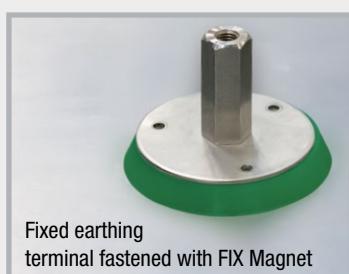
Fastening to steel formworks using the FIX Magnet

Art.Gr.
420

Art. no.	Description	PU	Weight/pc.	Price/pc.	
091410	FIX Magnet for formwork aid Power Magnet for all FIX formwork aids, incl. screw and wing nut	25 pcs.	0.14 kg	€32.80	
090804	FIX EFP formwork aid for fixed earthing terminals M10/12 and M12 Cone height 11 mm	25 pcs.	0.03 kg	€5.00	



Installation of a fixed earthing terminal on the FIX EFP formwork aid



Fixed earthing terminal fastened with FIX Magnet



Option for connection to the fixed earthing terminal, for example with axis and clamp

MultiCap

Protective cap
to DIN 18014

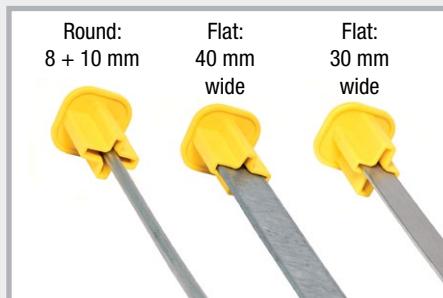
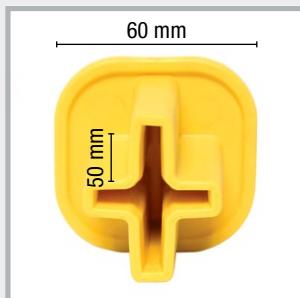
PVC protective cap
for round and flat conductors

Art.Gr.
530



Art. no.	Description	PU	Weight/bag	Price/pc.
100500	MultiCap , colour: yellow, area of application: round conductor: 8 + 10 mm flat conductor: 30 x 3.5 mm 40 x 4.0 mm 30 x 3.0 mm 40 x 5.0 mm	1 bag of 100 pcs.	5.15 kg	€1.25

Technical data



Material: PVC,
Large labelled safety cap,
60 x 60 mm,
long mounting slot
50 mm

Round: 8 + 10 mm
Flat: 40 mm wide
Flat: 30 mm wide

MultiCap can be used universally



Description

- No risk of injury
- Simply plug on
- Yellow signal colour
- One protection cap for 6 sizes

Excerpt from DIN 18014

Foundation earth electrode:

For safety reasons, the terminal lugs must be
prominently marked during the construction phase.

Terminal lugs

Round conductor rods, bevelled

Art.Gr.
531

Art. no.	Description	Length	PU	Weight per bundle	Price per pc.	
100555	V4A stainless steel round conductor Ø 10 mm	1.50 m	1 bundle of 10 pcs.	9.40 kg	€15.00	
100560	V4A stainless steel round conductor Ø 10 mm	2.00 m	1 bundle of 10 pcs.	12.50 kg	€19.50	
100565	V4A stainless steel round conductor Ø 10 mm	2.50 m	1 bundle of 10 pcs.	15.70 kg	€26.20	
100570	V4A stainless steel round conductor Ø 10 mm	3.00 m	1 bundle of 10 pcs.	18.60 kg	€30.50	

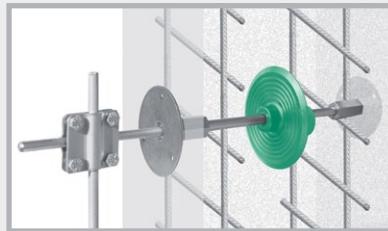
RONDO Standard

Sealing collars for lightning protection wire and earthing strap



RONDO sealing collars form pressure water-tight seals for lightning protection wires and earthing straps passing through concrete walls, floor slabs and shafts.

Art.Gr.
400



Art. no.	Description	PU	Secondary packaging	Weight per pc.	Price per pc.	
090890	RONDO RO 10 , for lightning protection conductors Ø 8 + 10 mm	1 pc.	1 carton of 100 pcs.	0.12 kg	€21.20	
090892	RONDO RO flat , for earthing strap 30x3.5 + 30x3.0 mm	1 pc.		0.18 kg	€23.40	
090988	RONDO EFP , for hexagon fixed earthing terminal	1 pc.	1 bag of 25 pcs.	0.04 kg	€7.00	



RONDO RO 10, mounted



RONDO RO flat, mounted

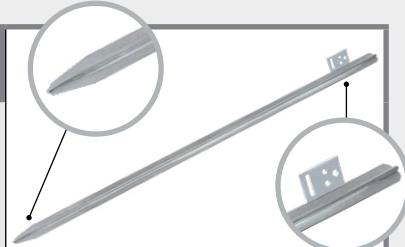
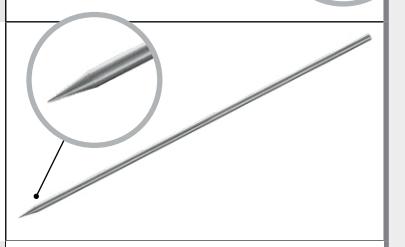
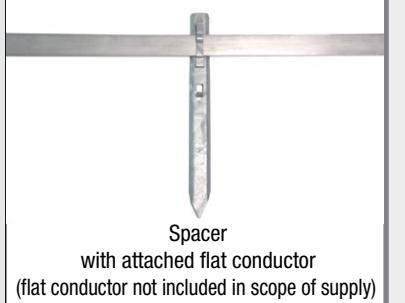
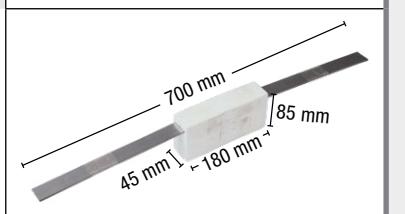


RONDO EFP, mounted

The sealing collars are supplied with fastening straps, ready for installation

Accessories

 Art.Gr.
530

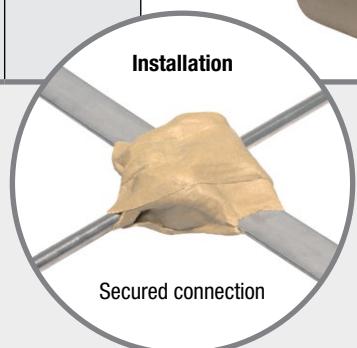
Art. no.	Description	PU	Weight per pc.	Price per pc.	
100165	Profiled earth rod, Length: 1.5 m, galvanised, cross profile 50 x 50 mm, with terminal lug	1 pc.	3.90 kg	€23.50	
100206	Earth rod for the construction site, Length 1.2 m, Ø 20 mm, galvanised, with impact tip, Connection with clamps from the earth rod range	1 pc.	2.86 kg	€15.20	
100170	Spacer for foundation earth electrode, galvanised, for round connector Ø 8-10 mm, earthing strap 30 x 3.5 mm, length 280 mm, installation spacing 1-1.5 m	1 carton of 100 pcs.	9.80 kg per carton	€1.90	 Spacer with attached flat conductor (flat conductor not included in scope of supply)
100176	Expansion strip with polystyrene body, V2A stainless steel, for routing of foundation earth electrode through expansion joints	1 pc.	0.70 kg	€51.90	

Anti-corrosive tapes

for wrapping of overground and underground connections

 Art.Gr.
530

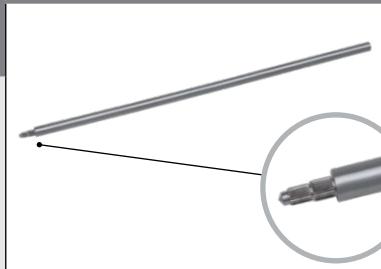
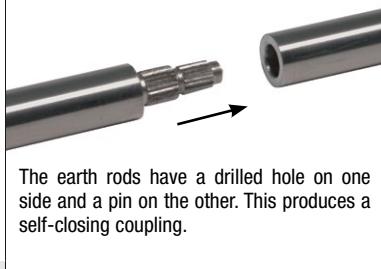
Art. no.	Description	PU	Weight per roll	Price per roll	
100190	Anti-corrosive tapes, Roll length 10 m certified by DVGW				
100193	Size: 1.5 x 50 mm	1 carton of 40 rolls	0.71 kg	€10.65	



Earth rod

for use in earthing systems

Art.Gr.
533

Art. no.	Design	PU	Weight per pc.	Price per pc.	
100205	Earth rod for the installation of earthing systems, galvanised, Length 1500 mm, Ø 20 mm	1 pc.	3.60 kg	€23.60	
100210	Earth rod for the installation of earthing systems, V4A stainless steel, Length 1500 mm, Ø 20 mm	1 pc.	3.70 kg	€92.90	 <p>The earth rods have a drilled hole on one side and a pin on the other. This produces a self-closing coupling.</p>
100215	Impact tip for driving in the first earth rod, bright steel	1 pc.	0.04 kg	€6.00	
100216	Drive-in aid for earth rod, bright steel	1 pc.	0.48 kg	€11.00	
100218	Connecting clamp for earth rod, galvanised, heavy duty version with M10 screws for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 pc.	0.38 kg	€5.00	
100217	Connecting clamp for earth rod V4A stainless steel, heavy duty version with M10 screws for round conductors Ø 8 + 10 mm and flat conductors up to 40 mm	1 pc.	0.30 kg	€14.00	 <p>Connecting clamp installed</p>

Basic principles of the installation of lightning protection conductors and connectors

FOUNDATION EARTH ELECTRODE

Installation location: In the concrete of the foundation and floor slab with minimum 5 cm concrete cover on all sides

Material: Galvanised or non-galvanised steel as flat conductor 30 x 3.5 mm or round conductor DN 10 mm

CONNECTION PARTS ON FOUNDATION EARTH ELECTRODE

Installation location: In subsoil

Material: A4 stainless steel material grades 1.4401, 1.4404, 1.4571

Flat conductor 30 x 3.5 mm or round conductor DN 10 mm

RING EARTH ELECTRODE AND CONNECTION PARTS ON RING EARTH ELECTRODE

Installation location: Outside the foundation in the subsoil

Material: A4 stainless steel material grades 1.4401, 1.4404, 1.4571 as 30 x 3.5 mm flat conductor or DN 10 mm round conductor

Galvanised material is not permitted in this area

CONNECTORS

Installation location: In subsoil, connector made of A4 stainless steel, galvanised in foundation

Description: Wedge connectors are not permitted: unless installed in non-vibrated concrete 4 x M6 screws above ground only and for arrester lines and down conductors

4 x M8 or 2 x M10 screws and M10 multi-purpose connecting clamp for use in the following areas: subsoil, concrete, above ground, down conductors and arrester lines.

DIN STANDARDS DIN EN 62561-1 and 62561-2

COSTS

The cost of stainless steel round conductors is up to 33% less than stainless steel flat conductors. The round conductor, which can be installed as an alternative to the flat conductor, is easier to handle and therefore has a significantly higher workability.

FORMWORK ACCESSORIES



**STOPPER SCREW +
STOPPER**

pages 177 – 178



**STOPPER distance tube +
STOPPER sealing cone**

pages 179 – 180



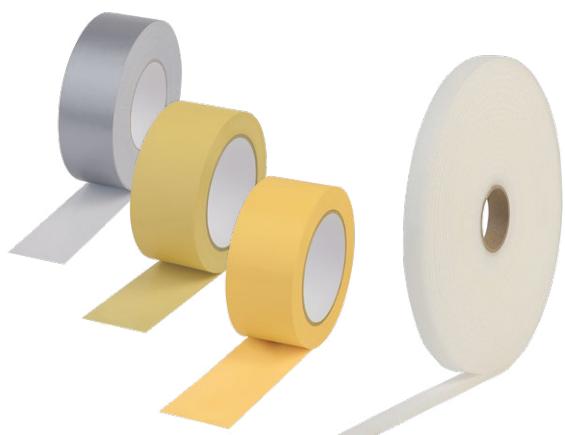
RONDO MINI + ActiveRings

page 180



**Corrugated bearings +
impact sound insulation**

page 181



KLEBO tapes

page 182



Damp proof courses

page 183

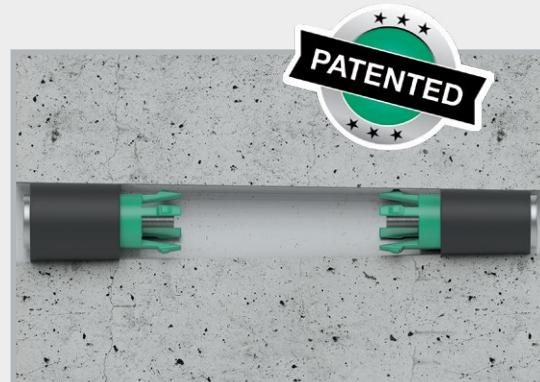
WATERPROOFING TECHNOLOGY

for inner and outer waterproofing of plastic or fibre cement formwork tie points and conical anchor holes

STOPPER SCREW



Screwed sealing of formwork tie points – maximum safety with superb appearance



STOPPER



Inner seals for plastic and fibre cement distance tubes



RONDO MINI



Sealing collars for waterproofing of plastic or fibre cement distance tubes



ActiveRing



The swelling external high-pressure seal for plastic and fibre cement distance tubes



STOPPER SCREW

Technical details page 184

Art.Gr.
611

STOPPER SCREW type in

Art. no.	Description	Tie point inner diameter	PU bucket	Secondary packaging	Weight per PU	Price per pc.
046230	STOPPER SCREW 17 in Total length: 72 mm	17 to 19.5 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	2.80 kg	€2.50
046240	STOPPER SCREW 20 in Total length: 72 mm	19.5 to 22 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	3.20 kg	€2.55
046210	STOPPER SCREW 22 in Total length: 72 mm	21.5 to 23 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	3.60 kg	€2.60
046220	STOPPER SCREW 23 in Total length: 72 mm	22.3 to 25.4 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	4.00 kg	€2.65
046250	STOPPER SCREW 25 in Total length: 72 mm	25 to 28 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	4.80 kg	€2.90
046270	STOPPER SCREW 28 in Total length: 72 mm	27.5 to 29 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	5.10 kg	€4.00
046260	STOPPER SCREW 31 in Total length: 80 mm	31 to 34 mm	50 pcs. incl. 2 bits	1 pallet = 55 buckets	3.80 kg	€4.20

STOPPER SCREW type covered

Art. no.	Description	Tie point inner diameter	PU bucket	Secondary packaging	Weight per PU	Price per pc.
046330	STOPPER SCREW 17 covered Cover plate: 28 mm, total length: 75 mm	17 to 19.5 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	3.85 kg	€2.80
046340	STOPPER SCREW 20 covered Cover plate: 28 mm, total length: 75 mm	19.5 to 22 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	4.30 kg	€2.85
046310	STOPPER SCREW 22 covered Cover plate: 28 mm, total length: 75 mm	21.5 to 23 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	4.80 kg	€3.00
046320	STOPPER SCREW 23 covered Cover plate: 32 mm, total length: 75 mm	22.3 to 25.4 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	5.40 kg	€3.20
046350	STOPPER SCREW 25 covered Cover plate: 32 mm, total length: 75 mm	25 to 28 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	6.30 kg	€3.25
046370	STOPPER SCREW 28 covered Cover plate: 32 mm, total length: 75 mm	27.5 to 29 mm	100 pcs. incl. 2 bits	1 pallet = 55 buckets	6.60 kg	€4.35
046360	STOPPER SCREW 31 covered Cover plate: 38.5 mm, total length: 83 mm	31 to 34 mm	50 pcs. incl. 2 bits	1 pallet = 55 buckets	4.80 kg	€4.70

Accessories

Art. no.	Description	PU	Weight per pc.	Price per pc.	
046170	Hand-held cleaning brush Tie points of 17 – 34 mm	Art.Gr. 610	1 pc.	0.08 kg	€17.00
046171	Mechanical cleaning brush Tie points of 17 – 34 mm for drills or cordless screwdrivers	Art.Gr. 610	1 pc.	0.06 kg	€10.40
046183	STOPPER SCREW torque set 1 x torque bit holder, 2 x bits TX 20	Art.Gr. 611	1 set	0.04 kg	€55.00 per set

STOPPER

Inner seals for plastic and fibre cement distance tubes



Technical details pages 185 – 186



Art. no.	Description	PU	Secondary packaging	Weight per bucket	Price per pc.
046140	STOPPER in 22 for distance tubes inner diameter 21.5-23 mm	Bucket of 250 pcs.	1 pallet = 48 buckets	6.50 kg	€1.10
046150	STOPPER mini 22 for distance tubes inner diameter 21.5-23 mm	Bucket of 250 pcs.	1 pallet = 48 buckets	6.75 kg	€1.10
046160	STOPPER maxi 22 for distance tubes inner diameter 21.5-23 mm	Bucket of 250 pcs.	1 pallet = 32 buckets	9.25 kg	€1.35
046163	STOPPER in 26 for distance tubes inner diameter 26 mm	Bucket of 250 pcs.	1 pallet = 32 buckets	10.75 kg	€1.60
046170	Hand-held cleaning brush Tie points of 17 – 34 mm	1 pc.		0.08 kg per pc.	€17.00
046171	Mechanical cleaning brush Tie points of 17 – 34 mm for drills or cordless screw-drivers	1 pc.		0.06 kg per pc.	€10.40
046180	Drive-in aid for STOPPER 22 + 26 mm	1 pc.		0.08 kg per pc.	€8.00

Art.Gr.
610



Use a 1500-2000 g hard rubber hammer to drive in the STOPPER.



Product description

- STOPPERS are drive-in plugs which were developed for pressure-tight sealing of fibre cement and plastic distance tubes.
- Highly resistant plastic specially developed for this application
- Temperature range -35°C to +70°C; if the plugs are installed at ambient temperatures below 0°C, they must be stored above freezing point beforehand for a better installation.
- All-weather installation
- Seals immediately after driving in
- Little storage space required

STOPPER distance tube

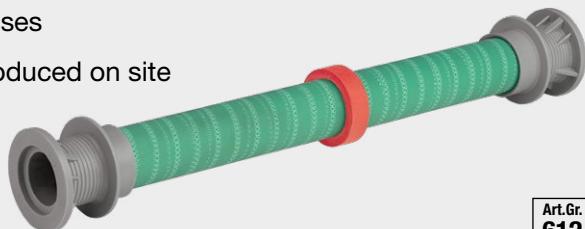


Pressure water-tight plastic distance tube

with cone (\varnothing 22 mm) on both sides

Technical details page 187

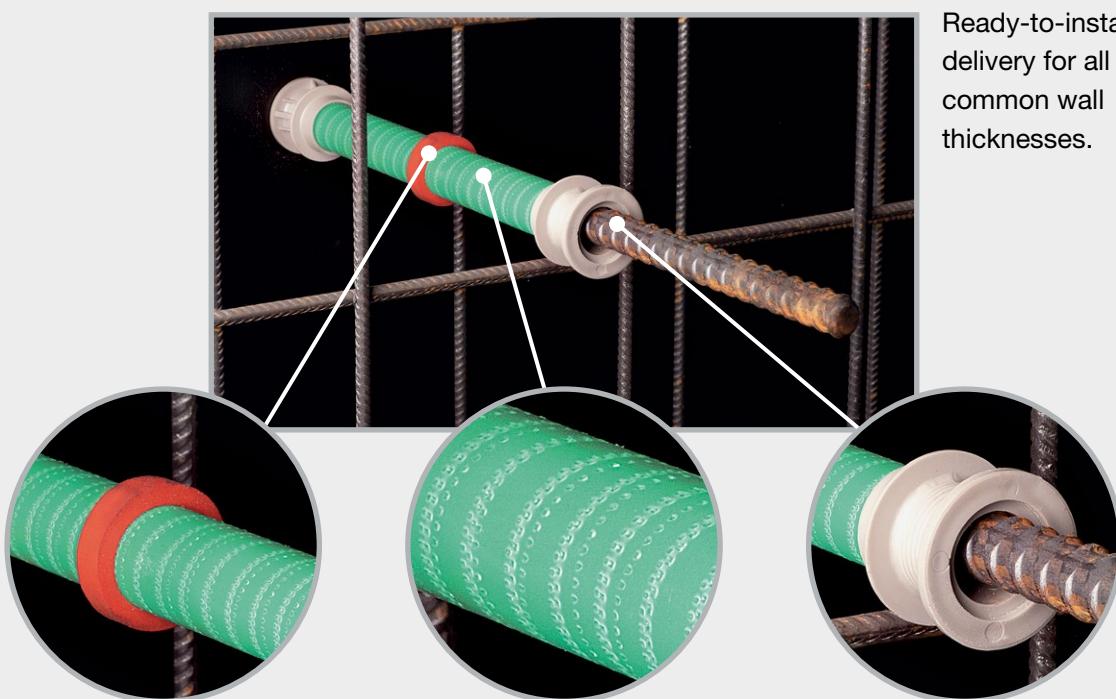
- Pressure water-tight transition to the concrete
- Ready-to-install delivery for all common wall thicknesses
- Special lengths available at short notice or can be produced on site
- Pressure water-tight system sealing for internal closure with:
 - STOPPER in / mini 30 m water column
 - STOPPER SCREW 70 m water column



Art.Gr.
612

Art. no.	Description	PU	Secondary packaging	Weight per 100 pcs.	Price per pc.
048200	STOPPER distance tube 22/200 \varnothing 22 mm, length 200 mm	100 pcs.	1 pallet = 18 bags	5.30 kg	€2.40
048240	STOPPER distance tube 22/240 \varnothing 22 mm, length 240 mm	100 pcs.	1 pallet = 16 bags	6.00 kg	€2.60
048250	STOPPER distance tube 22/250 \varnothing 22 mm, length 250 mm	100 pcs.	1 pallet = 16 bags	6.00 kg	€2.70
048300	STOPPER distance tube 22/300 \varnothing 22 mm, length 300 mm	100 pcs.	1 pallet = 16 bags	6.80 kg	€2.90
048350	STOPPER distance tube 22/350 \varnothing 22 mm, length 350 mm	100 pcs.	1 pallet = 14 bags	7.60 kg	€3.20
048365	STOPPER distance tube 22/365 \varnothing 22 mm, length 365 mm	100 pcs.	1 pallet = 14 bags	7.70 kg	€3.30
048400	STOPPER distance tube 22/400 \varnothing 22 mm, length 400 mm	100 pcs.	1 pallet = 12 bags	8.20 kg	€3.40

Other lengths are available at short notice.



Pressure water-tight concrete transition thanks to ActiveRing

Roughened tube surface for optimum concrete bond

For anchor bars
 \varnothing 15/17 mm

STOPPER sealing cone

Exposed concrete cone made of fibre concrete for a visually appealing distance tube closure

Technical details page 187

Art.Gr.
610

Art. no.	Description	PU	Secondary packaging	Weight per carton	Price per pc.	
046200	STOPPER sealing cone Ø 22 mm	Carton of 100 pcs.	1 pallet = 40 cartons	2.97 kg	€1.45	

RONDO MINI



Sealing collars for waterproofing of plastic or fibre cement distance tubes

Technical details page 188

Art.Gr.
630

Art. no.	Type	Description	PU	Weight per bag	Price per pc.	
090870	RONDO MINI 26 Suitable for 25-27 mm	for plastic distance tubes 22/26 mm Waterstop 2 cm Bearing width 2.7 cm	Bag of 50 pcs. including plastic fastening straps	1.50 kg	€2.25	
090873	RONDO MINI 40 Suitable for 38-42 mm	for fibre cement distance tubes 22/40 mm Waterstop 2 cm Bearing width 2.7 cm	Bag of 50 pcs. including plastic fastening straps	2.00 kg	€2.50	

ActiveRing



The swelling external high-pressure seal for plastic and fibre cement distance tubes

Technical details page 189

Art.Gr.
620

Art. no.	Description	PU	Secondary packaging	Weight per bag	Price per pc.	
047200	ActiveRing mini for outer pipe diameters 25-32 mm e.g. plastic distance tubes 22/26 26/31 26/32	Bag of 250 pcs.	1 pallet = 144 bags	1.75 kg	€0.70	 ActiveRing mini
047250	ActiveRing maxi for outer pipe diameters 38-42 mm e.g. fibre cement distance tubes	Bag of 250 pcs.	1 pallet = 70 bags	2.50 kg	€0.80	 ActiveRing maxi

Corrugated bearings, impact sound insulation & construction bearing

Corrugated bearing

Technical details page 190

Art.Gr. 641

Art. no.	Description	PU	Secondary packaging	Weight per roll	Price	
060010	Corrugated bearing 10 mm Size: 10000 x 200 x 10 mm with 3 parting seams	1 roll = 2 m ²	1 pallet = 30 rolls	15.60 kg	€34.50/m = €172.50/m ² = €345.00/roll	

Impact sound insulation T1 rolls

Technical details page 191

Art.Gr. 640

Art. no.	Description	PU	Secondary packaging	Weight per roll	Price per m		
060240	Impact sound insulation roll T1 Size: 10000 x 100 x 5 mm	1 roll	1 pallet = 110 rolls	4.65 kg	€4.50		
060230	Impact sound insulation roll T1 Size: 10000 x 100 x 10 mm		1 roll	1 pallet = 60 rolls	8.25 kg	€6.00	

Impact sound insulation T1 strips

Art.Gr. 640

Art. no.	Description	PU	Secondary packaging	Weight per strip	Price per m		
060210	Impact sound insulation strip T1 Size: 1000 x 100 x 10 mm		1 strip	1 pallet = 750 strips	0.89 kg	€6.50	

Impact sound insulation T1 boards

Art.Gr. 640

Art. no.	Description	PU	Secondary packaging	Weight per board	Price per m ²		
060110	Impact sound insulation board T1 Size: 1000 x 1000 x 10 mm		1 board	1 pallet = 80 boards	9.00 kg	€50.00	

Construction bearing R1 roll

Technical details page 191

Art.Gr. 642

Art. no.	Description	PU	Secondary packaging	Weight per roll	Price per m	
060350	Construction bearing roll R1 Size: 10000 x 50 x 10 mm	1 roll	1 pallet = 80 rolls	6.95 kg	€3.30	

Construction bearing R1 strips

Art.Gr. 642

Art. no.	Description	PU	Secondary packaging	Weight per strip	Price per m	
060330	Construction bearing strip R1 Size: 1000 x 100 x 10 mm	1 strip	1 pallet = 750 strips	1.55 kg	€10.50	

Construction bearing R1 boards

Art.Gr. 642

Art. no.	Description	PU	Weight/board	Price per m ²	
060300	Construction bearing board R1 Size: 1200 x 1000 x 10 mm	1 board	15.00 kg	€103.00	

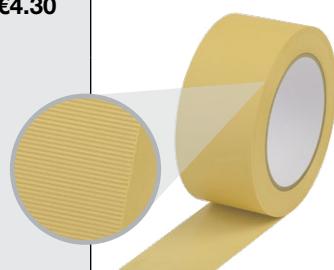
Tailor-made sizes available at short notice



KLEBO tapes

High-quality adhesive tapes for daily use on construction sites

Art.Gr.
660

Art. no.	Description	PU	Weight	Price/roll	
044020	KLEBO foam tape 19x6 mm One-sided self-adhesive foam tape Colour: white Roll length: 10 m Tape width: 19 mm Thickness: 6 mm	1 carton of 16 rolls 1 pallet = 24 cartons	1.20 kg per carton	€3.25	
044040	KLEBO Duct Tape Standard, 48 mm Colour: silver Roll length: 50 m Bandbreite: 48 mm	1 carton of 24 rolls 1 pallet = 30 cartons	8.90 kg per carton	€6.00	
044060	KLEBO PVC adhesive tape, cross-grooved, 50 mm Tear-resistant soft PVC adhesive tape Colour: yellow Roll length: 33 m Tape width: 50 mm	1 carton of 36 rolls 1 pallet = 27 cartons	12.15 kg per carton	€4.30	

MURO-Top damp proof course

The barrier against rising damp

Art.Gr.
600



MURO-Top damp proof courses

- Made of the highly-resistant material polyolefin
- Protect foundation walls and masonry reliably and permanently against rising damp
- Profiled on both sides
- Resistant to many media
- Installed in a single layer with only 20 cm overlap at joint
- Foils with a thickness of less than 1.2 mm are not suitable for applications requiring a General Building Supervisory Test Certificate

Art. no.	Roll width	Roll length	Roll area	PU	Secondary packaging	Weight per roll	Price per m ²	Price per roll
041115	11.5 cm	50 m	5.75 m ²	1 roll	Pallet of 500 rolls	approx. 1.50 kg	€1.15	€6.61
041150	15.0 cm	50 m	7.50 m ²	1 roll	Pallet of 400 rolls	approx. 2.25 kg	€1.15	€8.63
041175	17.5 cm	50 m	8.75 m ²	1 roll	Pallet of 350 rolls	approx. 2.35 kg	€1.15	€10.06
041200	20.0 cm	50 m	10.00 m ²	1 roll	Pallet of 300 rolls	approx. 2.55 kg	€1.15	€11.50
041240	24.0 cm	50 m	12.00 m ²	1 roll	Pallet of 240 rolls	approx. 3.05 kg	€1.15	€13.80
041250	25.0 cm	50 m	12.50 m ²	1 roll	Pallet of 240 rolls	approx. 3.70 kg	€1.15	€14.38
041300	30.0 cm	50 m	15.00 m ²	1 roll	Pallet of 200 rolls	approx. 4.15 kg	€1.15	€17.25
041365	36.5 cm	50 m	18.25 m ²	1 roll	Pallet of 160 rolls	approx. 4.85 kg	€1.15	€20.99
041425	42.5 cm	50 m	21.25 m ²	1 roll	Pallet of 150 rolls	approx. 5.85 kg	€1.15	€24.44
041500	50.0 cm	50 m	25.00 m ²	1 roll	Pallet of 120 rolls	approx. 6.30 kg	€1.15	€28.75
041750	75.0 cm	50 m	37.50 m ²	1 roll	Pallet of 100 rolls	approx. 10.30 kg	€1.15	€43.13
041000	100.0 cm	50 m	50.00 m ²	1 roll	Pallet of 80 rolls	approx. 13.85 kg	€1.15	€57.50

Technical data

Material: Polyolefin, roughly textured on both sides

Thickness: 0.3 mm, 0.35 mm including profile

Weight: Approx. 280 g/m²

Temperature range: -30°C to +60°C

Resistance:

- Water-impermeable
- Compatible with bitumen
- Petrol-resistant
- Ground water-resistant

- Alkali-resistant
- Rot-proof
- Diesel-resistant
- Ground water-neutral

STOPPER SCREW

STOPPER SCREW



Screwed sealing of formwork tie points – maximum safety with superb appearance

- Pressure water-tight, soundproof and radon-tight
- Fire resistance class EI 240
- For fibre cement and plastic distance tubes
- For conical anchor holes
- Little storage space required
- All-weather installation



Installation

Insert – Tighten – Tight



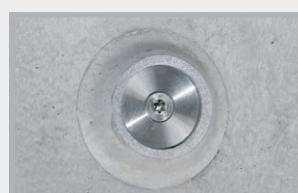
Torque set for ensuring the correct mounting torque

Appearance

Type "in"



Type "covered"



Seal for distance tubes with lip seal (above) or with cone (below).

Water pressure test



Type of formwork tie point	STOPPER SCREW Type "in" Water column	STOPPER SCREW Type "covered" Water column
Distance tube Ø 22 mm Plastic/fibre cement	70 m	70 m
Distance tube Ø 26 mm Plastic	40 m	40 m
Distance tube Ø 27 mm Fibre cement	40 m	40 m
Distance tube Ø 32 mm Plastic	40 m	40 m
Conical anchor holes	50 m	50 m

STOPPER



Inner seals for plastic and fibre cement distance tubes



Installation of STOPPER in



1
The STOPPER in is pushed into the distance tube.



2
The STOPPER in is driven in with a 1500-2000 g hard rubber mallet.



3
Flush seal for distance tubes with lip seal.



4
Flush seal for distance tubes with cone.



5
The STOPPER in can be inserted to any depth.



6
After inserting the STOPPER in, a cone can be glued in.

Installation of STOPPER mini



1
Position and drive in the STOPPER mini



2
Sealing of distance tube with lip



3
Sealing of distance tube with cone

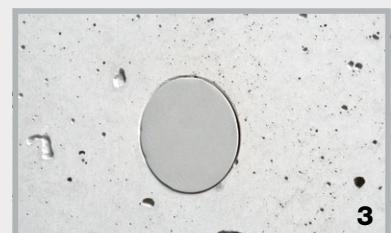
Installation of STOPPER maxi



1
Push the STOPPER maxi into the distance tube



2
Drive in with rubber mallet



3
Pressure-tight and flush seal

STOPPER tests

Water



Tube type	STOPPER maxi 22 Water column	STOPPER mini 22 Water column	STOPPER in 22 Water column	STOPPER in 26 Water column
Plastic distance tube inner diameter approx. 21.5-23 mm	50 m	50 m	30 m	-
Fibre cement distance tube inner diameter approx. 22 mm, round	40 m	40 m	20 m	-
Steel distance tube inner diameter approx. 22.45 mm, round	40 m	40 m	20 m	-
Steel distance tube inner diameter approx. 23 mm, round	30 m	30 m	20 m	-
Plastic distance tube inner diameter 26 mm	-	-	-	50 m

Fire



- Fire resistance class EI 120 to DIN EN 13501-2 (STOPPER mini/STOPPER maxi)
Room closure test with fibre cement distance tubes
For the duration of the test (120 minutes), no cracks or gaps developed on the room side.
During this time, no flames were visible on the side facing away from the fire.
- Fire resistance class EI 240 (STOPPER in 22 / STOPPER in 26)
- Construction material class DIN EN 13501-1 E = normally flammable
DIN 4102-1 B2 = normally flammable

Resistance



As well as undergoing a comprehensive slurry/liquid manure/silage effluent test, the plastic is also resistant to several media:

- Slurry
- Liquid manure
- Silage effluent

Depending on the concentration
(Please consult our team)

- Fermentation mash
- Radon + methane gas
- UV radiation

- Diluted acids + alkalis

- Ozone
- Bitumen

- Oils

Sound insulation

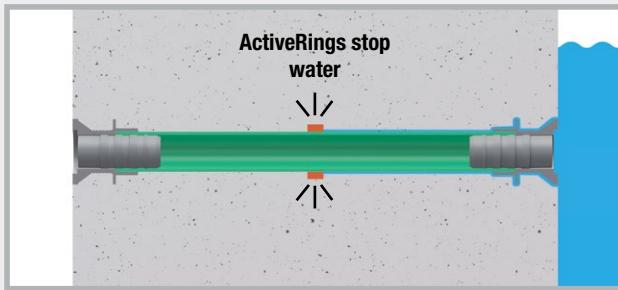


Standard sound level differential - test

MFPA test according to DIN EN ISO 10140-2

A distance tube installed in concrete and sealed at both ends with the STOPPER achieves exactly the same standard sound level as monolithic concrete with the same component thickness.

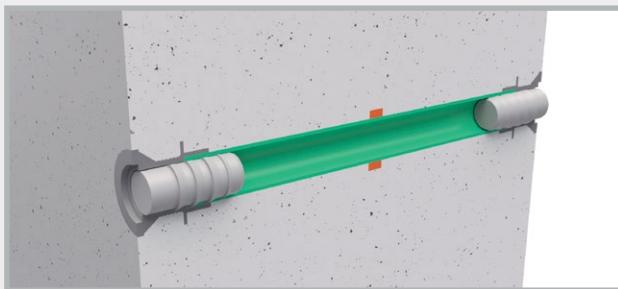
STOPPER distance tube



After stripping the formwork, the ActiveRing sits centrally in the concrete part. The ActiveRing seals the transition between the STOPPER distance tube and the concrete securely and permanently.



Sealing options for the STOPPER distance tube



Pressurised water test up to 30 m water column



Pressurised water test up to 70 m water column

STOPPER sealing cone

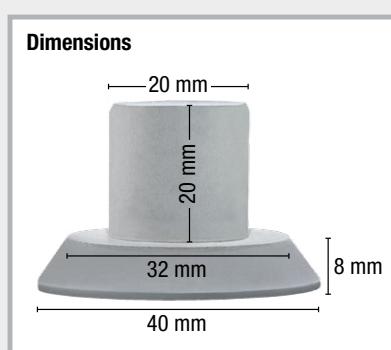
Exposed concrete cone made of fibre concrete for a visually appealing distance tube closure

Art.Gr.
610

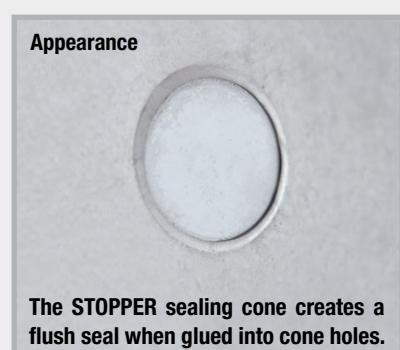
- For distance tubes Ø 22 mm
- Cone height 8 mm
- Building material class A1
– non-combustible
- Colour: cement grey

Bonding options

Concrete adhesive for gluing into the cone holes can be found in product group 3 on page 104 in our full catalogue. The single-component PROTECT Easy 1K and the two-component PROTECT BK 2K have been specifically developed for this application.



Appearance



The STOPPER sealing cone creates a flush seal when glued into cone holes.



PROTECT Easy 1K (Art. no. 040030)



PROTECT BK 2K (Art. no. 040100)



RONDO MINI

Sealing collars for waterproofing of plastic or fibre cement distance tubes

 Art.Gr.
630

RONDO MINI sealing collars can be mounted onto plastic or fibre cement distance tubes quickly and easily at the construction site.

- Pressure test performed by MFPA Leipzig
- Easy and safe installation
- Good chemical resistance
- Very cost-effective
- Push on, fasten and tight

Resistance

- Diluted acids + alkalis
- Liquid manure + slurry
- Fermentation mash
- Oils and bitumen
- Radon + methane gas

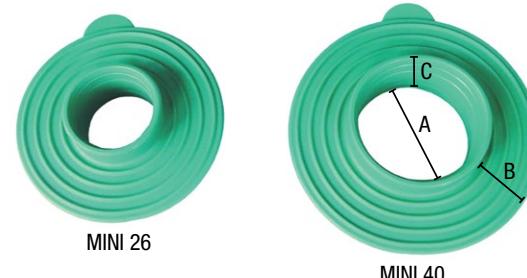


Pressure water-tight up to 30 m water column

Product description

Material: TPE polymer compound

Installation: Temperature range -35°C to +70°C

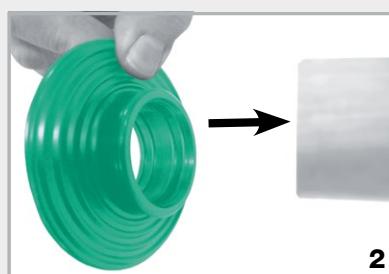


A Pipe slot with additional waterstops
 B Waterstop 2 cm
 C Bearing width 2.7 cm

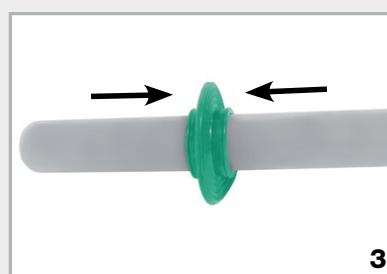
Quick and easy installation



1 Fibre cement distance tube, RONDO MINI, 2 fastening straps



2 Slide the RONDO MINI onto the distance tube



3 Position RONDO MINI in the centre before fastening



4 Tighten both fastening straps by hand



5 The fastening straps can also be tightened using pliers



6 RONDO MINI installation complete

ActiveRing

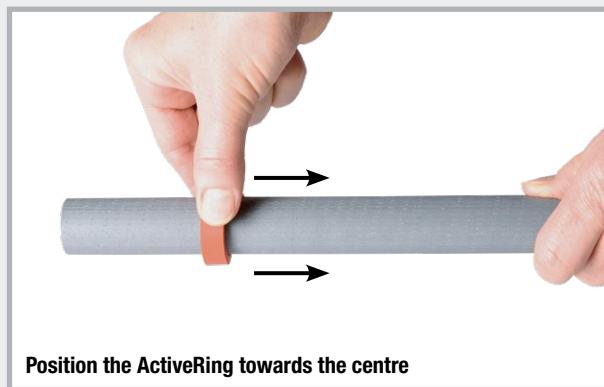
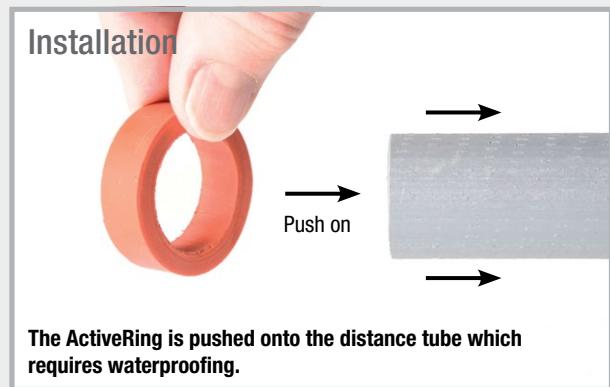


The swelling external high-pressure seal for plastic and fibre cement distance tubes

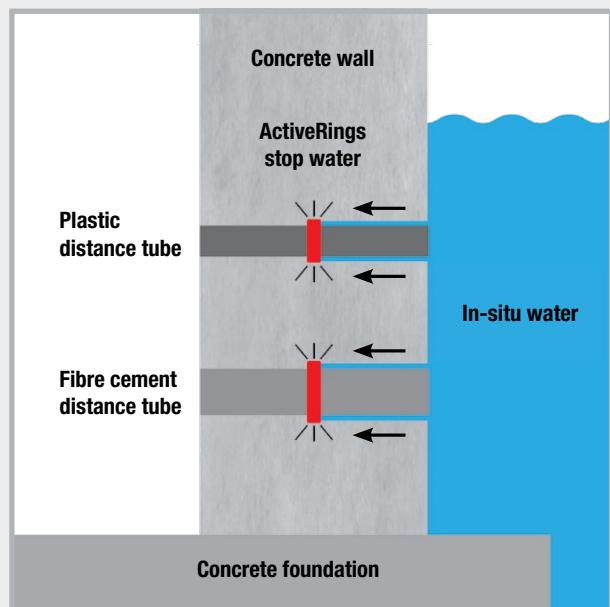
Art.Gr.
620

The ActiveRings mini and maxi are made of a highly swellable TPE mixture. When the rings come into contact with water, they activate, swell up and reliably stop the flow of water.

- Pressure test performed by MFPA Leipzig
- Easy and safe installation
- Good chemical resistance
- Very cost-effective
- Push on and seal



ActiveRings provide security



This is how ActiveRings work: When the rings come into contact with water, they activate, swell up and the resultant swell pressure stops the flow of water and provides a reliable seal. The seal remains permanently active when in contact with water.

Resistance

- Diluted acids and alkalis
- Salt water
- Methane gas + radon
- Liquid manure + slurry
- Fermentation mash + biogas
- Concrete alkalinity
- Liquid aggressive to concrete



At the construction site

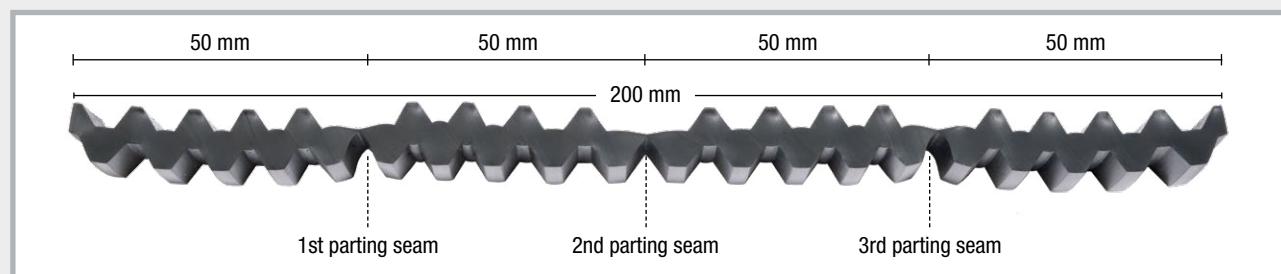
Corrugated bearing



Product description

Material: The corrugated bearing is a profiled bearing based on EPDM.

Application: For bearing of stairs and slabs
 Bearing of prefabricated elements



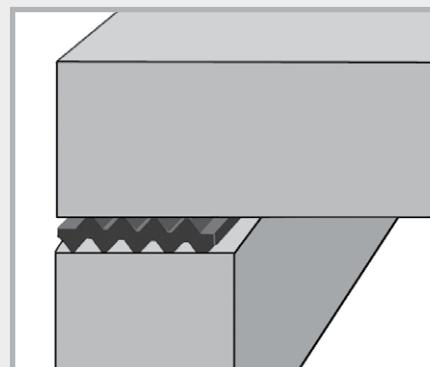
Description: Rolls

Testing: Load test up to 5 N/mm²
 Impact sound reduction up to 20 dB

Temperature resistance: -40°C to +90°C

Elongation at break: >300%

Environmental aspects: UV-resistant, halogen-free



Corrugated bearing between two constructional elements

Application



Corrugated bearing



The corrugated bearing can be cut with a cutter. Cut into the parting seam, the corrugated bearing can then be processed.



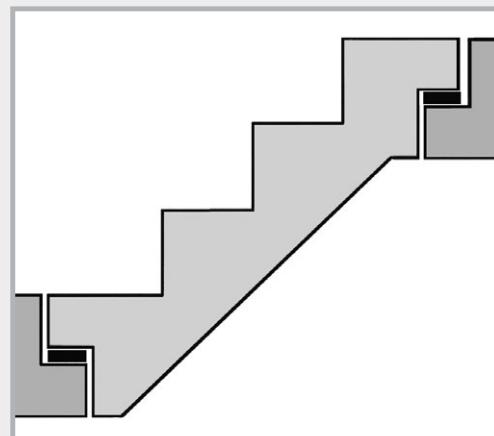
Over a width of 20 cm the corrugated bearing has 3 parting seams. This enables bearing widths of 5, 10, 15 and 20 cm.

Impact sound insulation T1



Product description

Material:	The impact sound insulation bearing T1 is made of fine mixed elastomer fibres bonded with PUR.
Application:	As bearing for stairs and slabs
Description:	Rolls, strips and boards
Testing:	Load test for thickness 10 mm up to 5 N/mm ²
	Impact sound reduction up to 19 dB
Temperature resistance:	-40°C to +90°C
Elongation at break:	>70%
Reaction to fire:	Class E
Environmental aspects:	UV-resistant

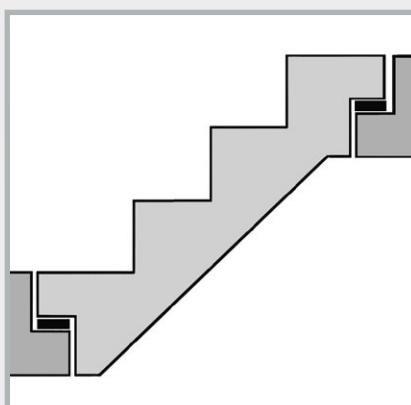
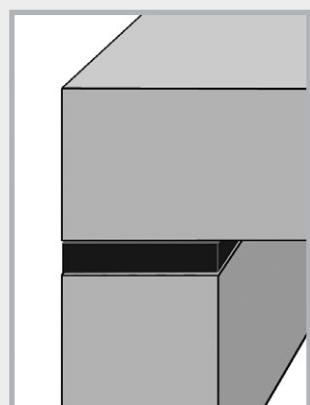


Impact sound insulation T1, e.g. for bearing of staircases

Construction bearing R1

Product description

Material:	NR-SBR copolymer
Application:	Separation of 2 construction elements Bearing of staircases Levelling out of unevenness
Description:	Strips, boards + rolls
Temperature resistance:	-25°C to +70°C
Elongation at break:	>200%



Ceiling installation

Shipping costs for deliveries ex works

Parcel shipment in Europe

Country	Belgium Netherlands Luxembourg Czech Republic	Denmark Sweden Finland Austria France	Slovakia Slovenia Croatia Poland	Italy Northern Ireland Republic of Ireland Spain Portugal Greece	Switzerland Norway Liechtenstein	Estonia Latvia Lithuania Bulgaria Romania Hungary	England Wales Scotland
Up to 15 kg including packaging	€22.00	€27.00	€28.00	€32.00	€48.00	€32.00	€35.00
Up to 25 kg including packaging	€33.00	€36.00	€35.00	€39.00	€58.00	€42.00	€48.00

Island deliveries available on request

Delivery time maximum 5 working days for European countries

Parcel shipment with Express Europe

Country	Belgium Netherlands Luxembourg Czech Republic	Denmark Sweden Finland Austria France	Slovakia Slovenia Croatia Poland	Italy Northern Ireland Republic of Ireland Spain Portugal Greece	Switzerland Norway Liechtenstein	Estonia Latvia Lithuania Bulgaria Romania Hungary	England Wales Scotland
Up to 25 kg including packaging							Generally available on request

Coordinate express deliveries with our sales team.

The feasibility of every express delivery must be checked and confirmed.

There may be higher parcel costs as we have to charge for the volume weight, which may differ from the actual weight.

Notes

Notes

Conditions of Sale

As of 01/03/2023

The following conditions apply to all quotations and sales. The Buyer accepts them by acceptance of our quotations/invoices.

1. Quotations, recommendations, advice

Our quotations are valid in case of immediate acceptance only, otherwise they are without obligation. Stock information is given without any commitment. Samples and specimens are for guidance only and without any commitment. Recommendations and advice are given to our best knowledge, but without obligation. We will not be liable due to defaulted or insufficient advice, regardless of whether or not the Buyer had asked for advice.

The customer declares unequivocally by accepting the purchase contract that the items and any replica thereof will not be used, in whole or in part, in connection with the development, manufacture, handling, operation, maintenance, storage, detection, identification or dissemination of chemical, biological, radiological or nuclear weapons/other explosive devices or the development, production, maintenance or stockpiling of missiles/other systems capable of delivering such weapons, or the development, production, handling, operation, maintenance or stockpiling of cluster munitions or anti-personnel landmines or human rights violations.

2. Charge

We will always charge you at our prices valid on the day of delivery, freight forward from our warehouse, plus statutory value added tax, unless otherwise agreed and specified.

All separately contracted prices for goods, agreed upon at a time other than the delivery date, are calculated based on the purchase prices at the time the offer was prepared, if there is no express agreement to the contrary. If, in the time from when the contract was concluded until delivery, the purchase prices stipulated on the market increase compared to the purchase prices stipulated at the time of the offer, the price to be paid for the affected goods will change.

3. Shipment and transfer of risk

The Vendor effects shipment for the Buyer with due care. Liability, however, is limited to intent and gross negligence. The goods are transported by a parcel delivery company or forwarding agent. The goods are insured according to the relevant conditions of the carrier and the scope of the carrier's insurance policy. If the Buyer collects, the risk shall transfer to the Buyer when the goods are handed over. The following applies to domestic deliveries: Deliveries made free of charge are sent as DAP shipments under the rules of Incoterms 2020. Domestic deliveries made ex works are organised and dispatched by us, the goods are made available to the customer in the same manner as deliveries made free of charge. The Buyer must provide a suitable unloading facility. Any additional or extra cost for e.g. a second delivery shall be borne by the Buyer. The costs of dispatch are passed on to the customer, otherwise the risk is transferred as soon as the goods are made available to the customer at a designated location.

To other European countries and all countries outside the EU the goods are provided according to the rules of the current Incoterms 2020®. An Incoterm is chosen in each individual case in consultation with the Buyer.

4. Delivery

Periods of delivery that have been agreed upon are approximate only, unless a fixed date has been agreed in writing. Should we have not been able to deliver even after having been granted an additional respite of min. two weeks in written form, the Buyer is entitled to withdraw from the contract. Other claims arising from delayed delivery are inadmissible. Acts of God like strikes, plant closures, plant interruptions, transportation problems due to lack of vehicles or containers, railway and road blocks as well as all events beyond our control shall exempt us from our delivery commitments for the duration of the obstacles.

5. Return of goods

Goods may be returned with prior consent of MASTERTEC GmbH & Co. KG only. Goods which are not defective will be accepted in impeccable original condition only. 15% of the value of the goods, but minimum €25 will be deducted from the credited amount. Return shipments sent freight collect will not be accepted. The return shipment is effected at the buyer's risk.

6. Payment

The terms of payment are based upon an agreement. Should a cash discount be granted, the pre-condition is that payment of all previous invoices is settled. The cash discount is granted on the net invoice amount only. Default shall occur without prior reminder if the period allowed for payment is exceeded or in case of incomplete payment. We are entitled to charge default interest of min. 3% above the relevant bank rate of the German Central Bank as of the due date, irrespective of any other claims. Should the Buyer's creditworthiness turn out to be insufficient after conclusion of the contract, the Vendor is entitled to demand – at his own option – advance payment or provision of security for due or undue claims from all existing contracts and to refuse fulfillment until receipt of the advance payment or provision of security for due or undue claims from all existing contracts and to refuse fulfillment until receipt of the advance payment or provision of security.

7. Retention of title

Goods remain our property until receipt of complete payment (in case of payment by cheque/bill of exchange until final encashment). The title will not pass to the Buyer before all debts arising from consignments have been paid. For open accounts the retention of title serves as a security for our balances receivable.

The Buyer is entitled to sell the goods in the orderly course of business. The goods must neither be pledged nor assigned by way of security. The Buyer shall inform us without delay of any other interference with our rights by third party. If the Buyer sells the goods delivered by us, he assigns to us his receivables resulting from the sale including all accessory rights until complete discharge of liabilities to us.

Goods under retention of title shall always be processed to the exclusion of any acquisition of title under § 950 of the German Civil Code. Processing is done by the Buyer on the Vendor's behalf but without incurring any commitment on the Vendor's part.

In the event of any processing by the Buyer, the Vendor shall have the right of co-title to the new product to the amount of the invoice value of the processed goods under retention of title.

8. Notice of defect and warranty

The Buyer can file complaints only before use, sale or mixing of the goods. Complaints are to be filed within 8 days after receipt of the goods in written form. Notice of defects detected after that period must be filed to us immediately, i.e. without undue delay, in writing and can be recognised only if detection was impossible by inspection within a period of 8 days after receipt. Complaints filed after one month after receipt of the goods are not admissible under any circumstances.

In any case, defects detectable by proper inspection before use, sale or mixing of the goods can only be claimed if the rejected goods are still in the packaging used by us.

In case of a justified complaint, the Buyer has the right of exchange of the goods. Claims for cancellation of sale, reduction of the purchase price or damages as well as claims for compensation for any consequential damage are not admissible.

9. Damages

Any claims for damages by the Buyer that may arise directly or indirectly from ordering, delivery or use of our goods, regardless of the legal basis, are inadmissible, provided that we, our assistants, or our agents have not caused the damage by gross negligence or intention.

In case of damage caused by gross negligence, the claim for damages of a Buyer who is a merchant is limited to the compensation of the anticipated damage. Any claim for damages because of delayed performance or impossibility of performance due to slight negligence from a Buyer who is not a merchant will not be considered.

10. Place of fulfillment and jurisdiction

The place of fulfillment for deliveries (also for deliveries free domicile) is the relevant place of shipment, for payment Oberhaid as the Vendor's place of business. The place of jurisdiction for all parties, also for suits upon bills or cheques is Bamberg. The Vendor is free to choose another admissible place of jurisdiction.

Items made to order (materials from object-related production) are barred from repurchase.

Notes on the price list

All prices exclusive of VAT. We cannot be held responsible for misprints.

The items pictured may differ in appearance from the products delivered.

Oral and written advice is non-binding.

All prices are non-binding recommended sales prices.

The prices charged are those valid on the day of dispatch. No part of this publication may be reproduced without our prior permission.



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