dott.gallina
POLYCARBONATE SYSTEMS & SHEETS

GENERAL CATALOG

ED_ENG_2021

PLASTIC BUILDING CATALOGUE

ED_ENG_2021

- COMPANY PROFILE
- MODULAR SYSTEMS
- MULTIWALL SHEETS
- SOLID SHEETS

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INDEX


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1

COMPANY PROFILE

The Dott.Gallina Srl was founded in 1960 in La Loggia, a town nearby Torino, thanks to the Dr. Pier Aulo Gallina entrepreneurial spirit, whose dynamism has provided an impetus to the profiles production for the automotive industry. It gived the solid foundation of a constant growth that has achieved the current business reality.

Today the company is a **renowned player in the Italian market about the production of sheets and polycarbonate systems**, used to build windows-roofing-façades for the construction industry; the Dott. Gallina represent also **an excellence in the extrusion of technical profiles** designed for industrial and automotive fields. Besides the Italian headquarters, several production units have been created abroad in the US, India, Greece and Turkey, allowing the company to act as competitors of multinational in worldwide markets.

The Dott.Gallina is characterized by a high technological know-how developed over the years thanks to the investments in **design and mechanics workshop in order to create "in house" the production lines and the equipment**, thereby allowing to satisfy the most stringent regulations and specific requests product customization.

Modular polycarbonate systems destined to building sector offer innovative application opportunities, such as to be used in architectural realizations with international reputation, ensuring to guarantee them high performance in terms of physical-mechanical characteristics, energy-saving and aesthetics.

On the other hand the extrusion of industrial profiles gain market shares in automotive sector, that require more and more elaborate accessories. By virtue of an optical quality similar to glass in terms of transparency and thanks to the extreme lightness combined with a better thermo-mechanical behavior, these products are increasingly gaining the building market. More and more worldwide sustainability architectural projects have been fulfilled using Dott.Gallina materials.

PRODUCTIONS SITE

ITALY	LA LOGGIA (TURIN) - DOTT.GALLINA S.R.L.
GERMANY	DORTMUND - GALLINA DEUTSCHLAND GMBH
US	JANESVILLE (WISCONSIN) GALLINA USA LLC
GREECE	KILKIS - GA PLASTICS S.A.
TURKEY	ISTANBUL - GALLINA EURASIA
INDIA	NEW DELHI - GALLINA INDIA

OFFICES

SPAIN	AISLUX S.A.
FRANCE	POLYPAC
UK	POLYPAC
GERMANY - AUSTRIA	
BELGIUM - LUXEMBOURG	
SWEDEN - DENMARK	
AUSTRALIA	
MOROCCO	
UNITED ARAB EMIRATES	
COLOMBIA	SIGMA

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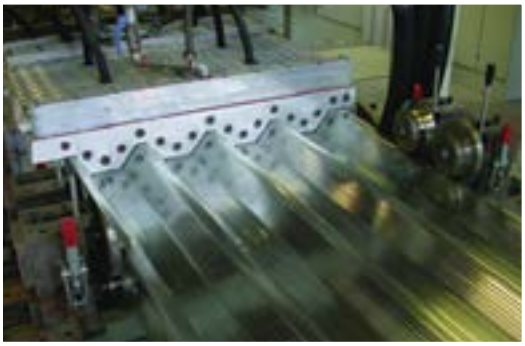
GALLINA DEUTSCHLAND

GALLINA EURASIA

GALLINA USA

GALLINA INDIA

GA PLASTICS



TECHNOLOGY

POLYCARBONATE IN THE CONSTRUCTION INDUSTRY

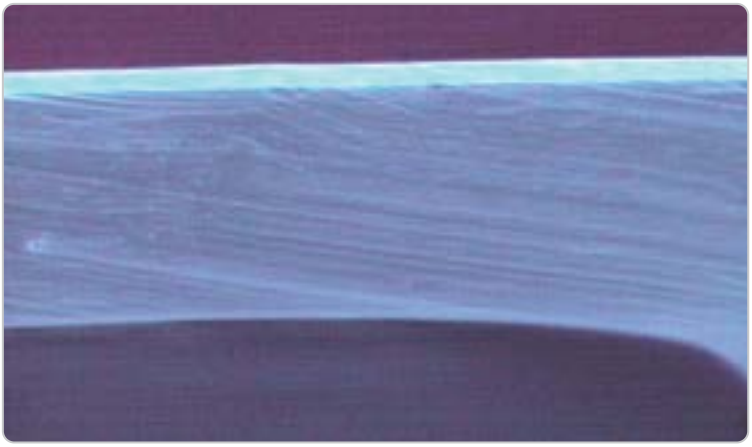
Polycarbonate is an innovative engineering plastic that is also versatile due to its transparency, good thermal insulation and impact strength. This makes it suitable for use in a wide range of residential and industrial building applications.

THE PRODUCTION PROCESS

Extrusion is a process used to produce continuously formed plastic multi-wall profiles and solid sheets.

U.V. PROTECTION

All products are co-extruded to ensure protection against exposure to ultraviolet radiation, extending their life and delaying the natural ageing of the material.

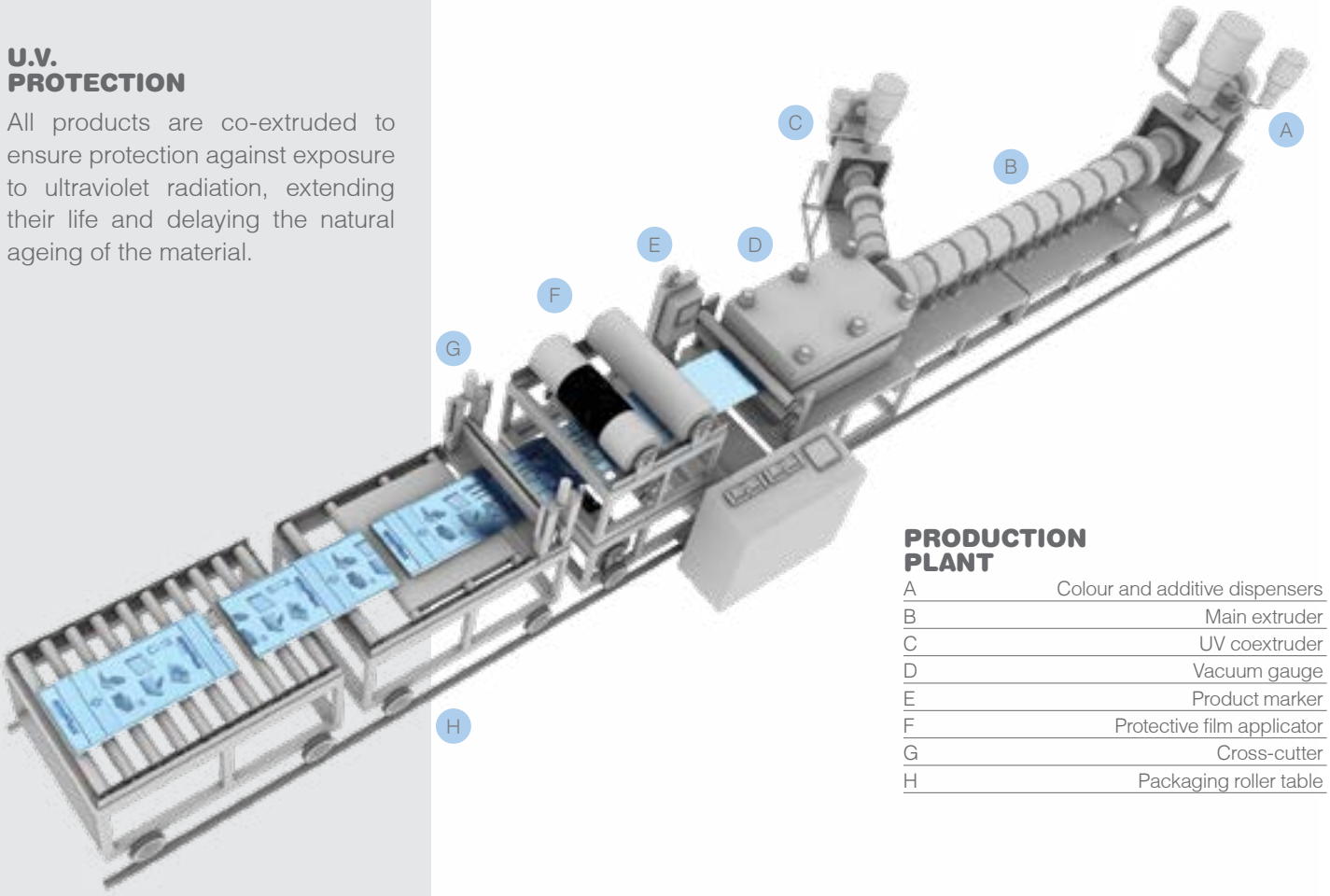


COEXTRUSION
Coextrusion observed with a microscope

PoliCarb® — MULTIWALL SHEETS

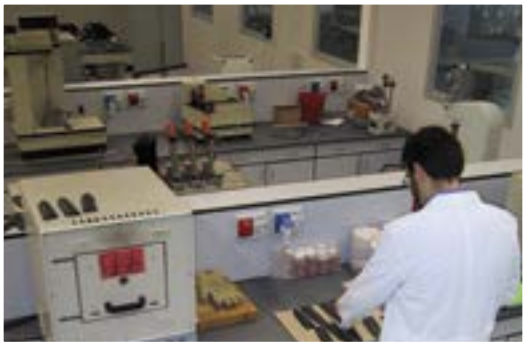
PoliComp® — SOLID SHEETS

arcoPlus® — MODULAR SYSTEMS

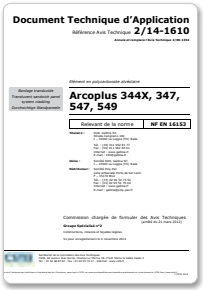


PRODUCTION PLANT

A	Colour and additive dispensers
B	Main extruder
C	UV coextruder
D	Vacuum gauge
E	Product marker
F	Protective film applicator
G	Cross-cutter
H	Packaging roller table



CERTIFICATION



ASSOCIATION EPSE

Since 2003 the European Polycarbonate Sheet Extruders (EPSE), with the representative support of the leading manufacturers of polycarbonate sheets in Europe, has been working to promote this versatile plastic material and its numerous applications.
Aided by the expertise in its technical committee, EPSE has also been integral to the development of safety and quality standards for the industry.
EPSE was founded in 2003 as a sector group of EuPC, the European trade association for plastic converters. EPSE is comprised of 10 full members, dott.gallina company forms an integral part of them since the constitution date, supported by 3 associate members.
Product innovations and market changes are periodically analyzed to ensure the commercialisation of certified and safe products.

QUALITY SYSTEM

The company operates a quality system certified to:

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Certified System
SAI GLOBAL
ISO 9001
IATF 16949
ISO 14001
ISO 45001

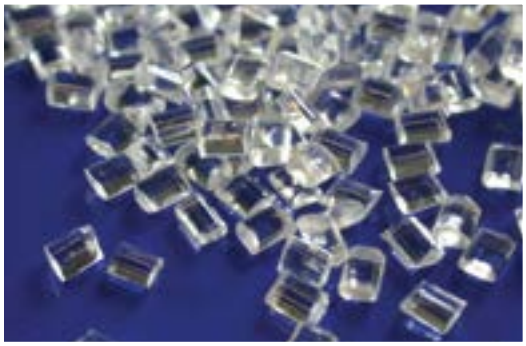
CE MARKING CE

European Regulation (EU) n.305/2011 (CPR - Construction Products Regulation) stipulates the issuance of a Performance Statement Document (DOP) and the affixing of the CE marking on each building product falling within the scope of an harmonized standard or designed in conformity with a European Technical Assessment.

DOP lists the essential characteristics of the product and its performance.
Currently the products dott.gallina subjected to CE marking are:

- **PoliCarb®, arcoPlus® and arcoWall®**, flat sheets and flat panels in multiwall polycarbonate, according to EN 16153:2013+A1:2015
- **TegoLUX®**, solid corrugated polycarbonate panels, according to EN 1013:2012+A1:2014
- **PoliComp®, Scudo®Pro** flat solid polycarbonate sheets, according to EN 16240:2013

DOP documents can be downloaded directly from the DOWNLOAD area of our website: ***https://www.gallina.it/*** based on unique identification (eg PoliCarb® 10mm).
The CE mark and the reference standard are also printed on the pallet's label suggesting all the products contained inside.



POLYCARBONATE

LIGHTWEIGHT

Polycarbonate is a lightweight material that is used in the construction industry to reduce building costs while guaranteeing compliance with positive and negative wind load requirements.

TRANSLUCENT

A key feature of polycarbonate is its transparency. The use of natural lighting, achieved by installing translucent polycarbonate roofing and walls, creates a more comfortable ambience while also ensuring good thermal insulation. Polycarbonate can be suitably tinted to modulate light transmission, optimise shading and thus reduce overheating inside the building. Coloured pigments are used to achieve pleasant colour effects to satisfy the most demanding aesthetic and architectural requirements.

VERSATILE

We supply an extensive range of products for use in the construction of translucent roofing and walls, skylights, fixed and openable insulated windows. Our continuous research has led to the development of a series of steel and aluminium accessories to complete the range. These are designed to make installation simple and safe and ensure compliance with the applicable fire and load strength ratings and safety of building requirements. Our products are all certified to the latest thermal insulation and energy saving standards.

PHYSICAL PROPERTIES

	VALUE	TEST METHOD
Density	1.200 kg/m^3	ISO 1183
Water absorption	± 0.19 %	ASTM D570

OPTICAL PROPERTIES

	VALUE	TEST METHOD
Light transmission	89 %	ASTM D570
Refraction index	1.586	ISO 489

MECHANICAL PROPERTIES

	VALUE	TEST METHOD
Resistance to tensile stress	66 MPa	ISO 527-2
Resistance to yield stress	60 MPa	ISO 527-2
Tensile modulus	2.300 MPa	ISO 527-2
Elongation at break	150 %	ISO 527-2
Izod impact	93 kJ/m^2	ISO 180/4A

THERMAL PROPERTIES

	VALUE	TEST METHOD
Application temperature	-40 +120°C	
Linear thermal expansion	0,065 mm/m°C	EN 16153
Vicat (B/50)	146÷151 °C	ISO 306

UV AND HAIL-RESISTANT

The exterior surface of the panel is co-extruded with high-performance UV-absorbing polycarbonate to ensure excellent protection against ultra-violet rays, hail and accidental impacts even after prolonged exposure to sunlight.

SAFE

Polycarbonate has a particularly high impact strength. Our products are therefore highly resistant to accidental impacts and hail and meet the requirements of safety standards for translucent glazing in public and work environments.

AN ENVIRONMENTALLY FRIENDLY MATERIAL

The various phases of polycarbonate processing involve very low energy consumption and environmental impact.
Polycarbonate is an energy-efficient solution and is totally recyclable at the end of its life.

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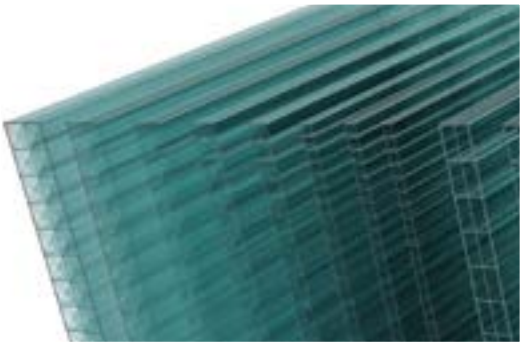
CHEMICAL RESISTANCE

Polycarbonate has good resistance to most chemicals with which it is likely to come into contact during normal use.
Specific tests are recommended for applications where the material is likely to come into contact with aggressive chemicals.
It is essential to verify their compatibility prior to use.
The table at the side provides a summary of reactions with some of the main products used.

	AGENT	VARIATION
ALCOHOLS	Methyl alcohol	Cracking
	Ethyl alcohol 50%	Unchanged
	n-Butyl alcohol	Unchanged
	Ethylene glycol	Unchanged
ALKALI	Sodium hydrate 1%	Unchanged
	Sodium hydrate 10%	Clouding
	Ammonium hydrate 10%	Browning
	Calcium hydrate 10%	Unchanged
INORGANIC ACIDS	Hydrochloric acid 35%	Cracking
	Hydrochloric acid 10%	Unchanged
	Sulphuric acid 70%	Yellowing
	Sulphuric acid 30%	Unchanged
	Nitric acid 40%	Yellowing
	Nitric acid 10%	Yellowing
	Cromic acid 10%	Unchanged
INORGANIC SALTS	Sodium chloride 10%	Unchanged
	Potassium nitrate 10%	Unchanged
	Potassium Bicrom. 10%	Yellowing
	Sodium sulphate 10%	Unchanged
	Ammonium chloride	Unchanged
	Sodium carbonate 10%	Unchanged
	Sodium bicarbonate 10%	Cracking
LUBRICATING OILS	Silicon oil	Unchanged
	Paraffin oil	Unchanged
	Machine oil	Unchanged
PLASTIFIED	Tricresyl phosphate	Clouding
	Dioctyl Adipate	Unchanged
	Butyl Stearate	Unchanged
	Trimetil. foreign acid	Unchanged
ORGANIC ACIDS	Acetic acid 70%	Unchanged
	Acetic acid 10%	Unchanged
	Formic acid 30%	Unchanged
	Lactic acid 5%	Unchanged
	Oxalic acid 10%	Unchanged
	Benzoic acid 10%	Unchanged
	Oleic acid 100%	Unchanged
VARIOUS	Benzol	Fast dissolution
	Toluol	Fast dissolution
	Industrial petrol	Yellowing - Cracking - Opacification
	Kerosene	Unchanged
	Naphtha Diesel	Unchanged
	n Heptane	Unchanged
	Methylethylketone	Clouding - Softening
	Acrylonitrile	Fast dissolution
	Vinyl acetate	Clouding - Softening
	Styrene	Clouding - Softening
	Ethylic ether (5 °C)	Swelling
	Diethylenetriamine	Dissolution
	Ethylenediamine	Dissolution
	Triethanolamine	Cracking
	Phenol 5%	Yellowing - Opacification
	Cresol 5%	Unchanged
	Formalin	Unchanged

PoliCarb®



MULTIWALL SHEETS

Optical and Thermal properties (EN 16153)

New nomenclature:

THICKNESS | WALLS NUMBER

PoliCarb 10 P 05w - 10mm

MODEL | WALL STRUCTURE (P= parallel, X= crossed) | THICKNESS (mm)

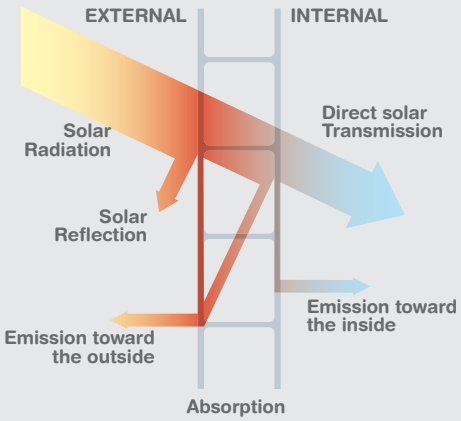
LIGHT TRANSMISSION (τ_v)

Different pigments are used to obtain different light transmission values. The values indicated in the table are based on calculations performed at specialist laboratories.

SOLAR FACTOR (g)

Incoming solar radiation is reflected, partially absorbed, and transmitted to the inside.

The solar factor indicated in the table is the ratio, expressed as a percentage, between the total energy transmitted to the inside and total solar radiation.



SHADING COEFFICIENT (SC)

The shading coefficient of a transparent sheet is the ratio between the sheet's solar factor and the solar factor of a clear sheet of glass with a thickness of 3mm (SC=g/0.87).

PROFILE	LIGHT TRANSMISSION (τ_v) %	SOLAR FACTOR (g) %	SHADING COEFFICIENT (SC)	THERMAL TRANSMITTANCE (U) W/m²K
PoliCarb 4 P 02w - 4mm				3,9
Crystal	84	78	0,90	
Bronze	53	65	0,75	
Opal	61	67	0,77	
PoliCarb 6 P 02w - 6mm				3,6
Crystal	82	81	0,93	
Bronze	47	62	0,71	
Opal	50	60	0,69	
PoliCarb 8 P 02w - 8mm				3,3
Crystal	79	80	0.92	
Bronze	45	59	0,68	
Opal	48	58	0,67	
PoliCarb 10 P 02w - 10mm				3,0
Crystal	81	80	0.92	
Bronze	45	59	0,68	
Opal	46	58	0,67	
PoliCarb 16 WIDE P 02w - 16mm				2,7
Crystal	80	79	0.91	
Bronze	65	70	0,80	
Opal	50	65	0,75	
PoliCarb 10 P 03w - 10mm				2,7
Crystal	73	75	0,86	
Bronze	43	57	0,66	
Opal	40	53	0,61	
PoliCarb 16 P 03w - 16mm				2,3
Crystal	74	75	0,86	
Bronze	40	55	0,63	
Opal	45	57	0,66	
Blue	45	70	0,80	
Green	60	70	0,80	
PoliCarb 20 P 03w - 20mm				2,1
Crystal	74	75	0,86	
Bronze	40	55	0,63	
Opal	52	63	0,72	
PoliCarb 6 P 05w - 6mm				3,1
Crystal	68	66	0,76	
Opal	45	56	0,64	
PoliCarb 8 P 05w - 8mm				2,7
Crystal	67	66	0,76	
Opal	45	52	0,60	
PoliCarb 10 P 05w - 10mm				2,4
Crystal	67	66	0,76	
Opal	39	49	0,57	
PoliCarb 16 X 05w - 16mm				2,1
Crystal	66	68	0,78	
Bronze	21	44	0,51	
Opal	29	44	0,51	
PoliCarb 20 X 05w - 20mm				1,8
Crystal	66	66	0,76	
Bronze	28	43	0,49	
Opal	30	46	0,53	
PoliCarb 25 X 05w - 25mm				1,6
Crystal	60	64	0,74	
Bronze	27	41	0,47	
Opal	44	56	0,64	
PoliCarb 16 P 07w - 16mm				1.8
Crystal	60	62	0,71	
Opal	30	45	0,52	
PoliCarb 20 P 07w - 20mm				1,6
Crystal	58	60	0,69	
Opal	35	46	0,53	
PoliCarb 25 X 07w - 25mm				1,4
Crystal	58	62	0,71	
Opal	34	47	0,54	
Reflecto	30	40	0,46	
PoliCarb 32 X 07w - 32mm				1,2
Cristallo	57	60	0,69	
Opale	39	43	0,49	
Reflecto	24	39	0,45	
PoliCarb 40 X 07w - 40mm				1,1
Crystal	59	61	0,70	
Opal	35	39	0,45	
Reflecto	25	40	0,46	
PoliCarb 25 X 11w - 25mm				1,3
Crystal	45	49	0,56	
Opal	39	47	0,54	
PoliCarb 32 X 11w - 32mm				1,1
Crystal	44	51	0,59	
Opal	34	45	0,52	
PoliCarb 40 X 11w - 40mm				1,0
Crystal	44	51	0,59	
Opal	25	34	0,39	
PoliCarb 55 X 13w - 55mm				0,79
Crystal	37	48	0,55	
Reflecto	24	37	0,42	

MODULAR SYSTEM

Optical, Thermal and acoustic properties (EN 16153)

PROFILE	LIGHT TRANSMISSION (τ_v) %	SOLAR FACTOR (g) %	SHADING COEFFICIENT (SC)	THERMAL TRANSMITTANCE (U) W/m²K	ACOUSTIC INSULATION (R_w) dB
arcoPlus324				1.8	16
Crystal	70	74	0,85		
Green	65	70	0,80		
Bronze	49	61	0,70		
Opal	39	52	0,60		
arcoPlus625 - Velario 20-5				1,7	16
Crystal	70	74	0,85		
Opal	52	57	0,66		
arcoPlus344x				1,7	19
Crystal	72	77	0,89		
Green	65	70	0,80		
Bronze	50	62	0,71		
Opal	23	44	0,51		
arcoPlus347-547				1,1	21
Crystal	54	58	0,67		
Green	60	65	0,75		
Bronze	40	47	0,54		
Opal	31	46	0,53		
arcoPlus549				1,0	21
Crystal	50	56	0,64		
Opal	28	46	0,53		
arcoWall5613				0,74	22
Crystal	37	45	0,52		
Opal	20	36	0,41		
arcoPlus684				3,0	18
Crystal	70	70	0,80		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	42	53	0,61		
arcoPlus6104				2,7	18
Crystal	70	70	0,80		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	37	50	0,57		
arcoPlus6124				2,5	19
Crystal	68	69	0,79		
Blue	50	55	0,63		
Bronze	45	50	0,57		
Opal	36	50	0,57		
arcoPlus626				1,7	20
Crystal	58	60	0,69		
Green	55	60	0,69		
Bronze	40	54	0,62		
Opal	33	46	0,53		
arcoPlus6410				0,94	21
Crystal	46	49	0,57		
Opal	35	46	0,53		
arcoPlus9207				1,7	20
Crystal	55	60	0,69		
Opal	43	52	0,60		
arcoPlus9257				1,4	20
Crystal	54	60	0,69		
Opal	43	53	0,61		
arcoPlus9327				1,3	21
Crystal	53	60	0,69		
Opal	41	52	0,60		
Velario 613				2,7	16
Crystal	76	77	0,89		
Opal	58	65	0,75		
arcoPlus1000				2,7	16
Crystal	70	74	0,85		
Opal	40	45	0,52		
arcoPlusSUPER1000				1.8	16
Crystal	65	66	0,76		
Opal	37	40	0,46		
arcoPlusMiniGreca5				2,5	16
Crystal	72	76	0,87		
Opal	47	52	0,60		
arcoPlusOnda - 6mm				3,2	16
Crystal	73	77	0,89		
Opal	45	50	0,57		

arcoPlus®

THERMAL TRANSMITTANCE (U-VALUE)

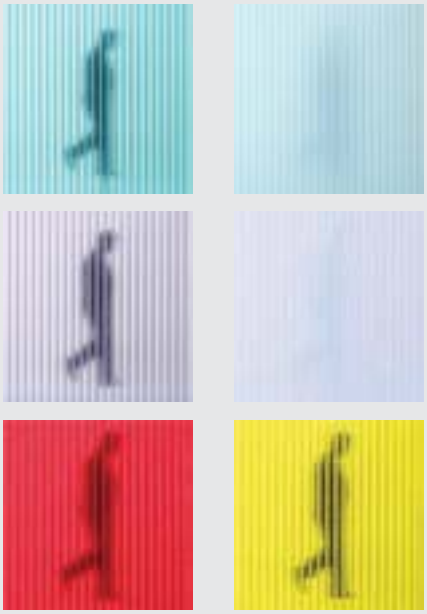
The thermal transmittance U, in building physics, identifies the building element attitude to transmit heat if subject to a temperature difference.

In particular, it is defined as the rate of heat loss through a unitary surface per degree centigrade difference in temperature between the two sides and depends on the material properties, on its structure and the linear thermal transmittance conditions.

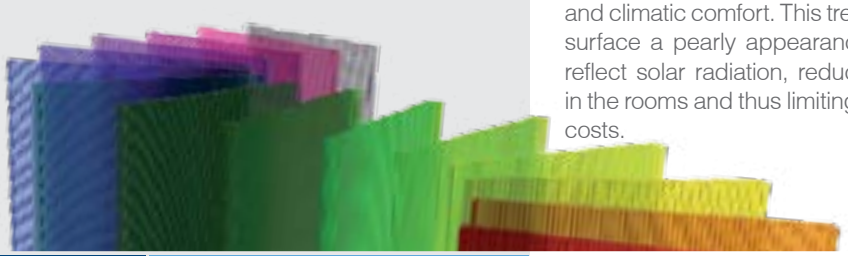
ACOUSTIC INSULATION (R_w)

Sound insulation refers to the ability of the material to resist the transmission of impact sound. It varies according to the frequency and the physical properties, dimensions and installation constraints of the component.

Special treatment for the improvement of the characteristics of the products in the construction of roofs and facades translucent, with innovative design solutions



COLOR, TRANSPARENCY AND SURFACE FINISHING
Custom production for every particular design requirement



PROJECT CALEIDO

To meet the requirements of architectural design is born the project Caleido oriented to create panels with customized colors. The arcoPlus® and arcoWall® panels can be produced with an infinite range of nuances, leaving the traditional few standard PC colors. Thanks to our production capacity, we can pull out the desired shade from a sample and re-create it in the polycarbonate mass. We produce the creativity shades!

IR TREATMENT SOLAR CONTROL

The panels spiked with IR treatment can absorb the portion of light corresponding to the infrared spectrum (780-1400nm), blocking solar heat but letting pass the brightness. Using these products, you can reduce up to 25% increase in the internal temperature caused by the greenhouse effect and you can keep the climate comfort.

AR TREATMENT

arcoPlus® panels with AR coating are characterized by a kind of coextrusion on the inner wall which diffuses the sunlight. It reduces the passage of heat but moreover this innovative surface prevents glares or flash, thus improving the environment's visual comfort of the locations they are installed.

UV-MATT TREATMENT

In order to avoid surface's glares that usually characterize the PC building covering and to get a new material sensation, we can coextrude a special matt and UV-protected finish on the outer wall arcoPlus®'s panels. It called UV-protected MATT. This treatment allows also a better distribution of natural light in the interiors and give a special one silk fill-touch.

REFLECTO TREATMENT

It is a special layer on the co-extruded surface that offers long-lasting benefits in visual and climatic comfort. This treatment gives the surface a pearly appearance, allowing it to reflect solar radiation, reducing overheating in the rooms and thus limiting air conditioning costs.

THE TECHNOLOGY OF DOUBLE COLOR

arcoPlus® panels can be produced with different colors on the two sides, this is due to the extrusion of two different masses. The particular production's technology allows to manage simultaneously the light transmission and color effect, maximizing the projects visual impact.

ANTI-GRAFFITI & ANTI-SCRATCH TREATMENT

arcoPlus® polycarbonate panels are virtually unbreakable and this property jointed with the insulation value makes them ideal for: façade, translucent window, skylights. If in the location where the polycarbonate panels are installed exists the risk of damage by vandalism as spray paint or kind of surface scratch, the better solution is the "AG-ANTIGRAFF" treatment. It create an anti-graffiti and anti-scratch surface, with a repellent barrier to oils and water prevents the "graffiti" to penetrate deeply into the substrate and will make it easy to remove. At the same time the arcoPlus® surface will be more resistant to the aggression of many chemical agents.

AB-ABSOLUTE TREATMENT

Colored opaque coextrusion, white or any other color, applied to the inner wall of panels (whose external side can have a different coloration or can be transparent), in order to block the view of any substructures or insulating materials when they are used to realize translucent glazing or façade cladding.

UV-TECH TREATMENT

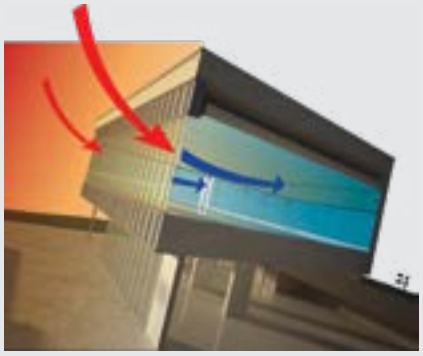
arcoPlus® with UV-TECH treatment is characterized by an extended warranty up to 15 years, due to a protective coextrusion on the external side, thanks to the special UV-absorbers more chemically stable and effective over time.

TAURUS EXTRA PERFORMANCE

The combination of three different production technologies for a new extra-performance package that allows a warranty extension of up to 20 years, able to guarantee the maximum duration of architectural projects: **UV-TECH** for greater protection from atmospheric degradation; **BICOLOR** to create design effects; **1mm WALL** external wall of the slabs and panels with a thickness of 1mm to ensure maximum resistance to hail and impact.

1.8 POLYCARBONATE LINE OF FILTER PROTECTION IR

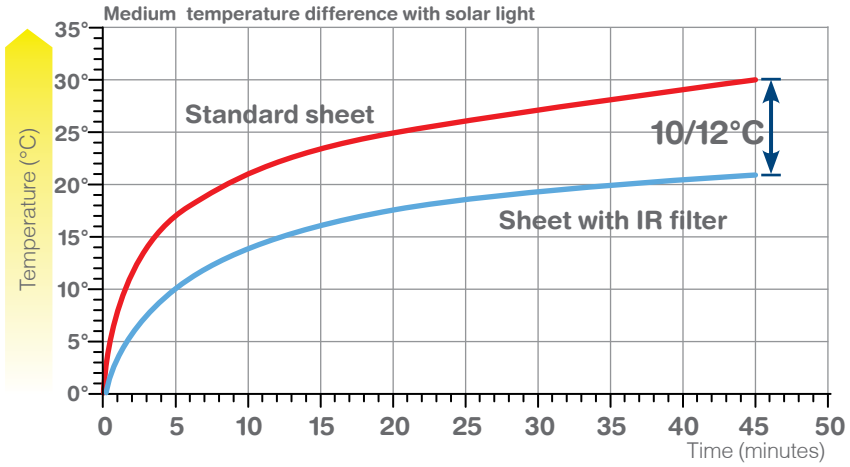
IR



NEW PRODUCT RANGE

The PoliCarb® IR, PoliComp® IR sheets and arcoPlus® IR panels let light in but not heat. They make up Dott. Gallina's new product range for transparent coverings and windows with solar control.
All products from the IR line offer innovative solutions for typical building applications where high levels of light are wanted while reducing the internal heating.

The potential result: reduced energy spending for cooling and for lighting as well as higher comfort.
The multiwall sheets, and the modular arcoPlus® IR panels offer incredible design flexibility in applications such as skylights, windows, greenhouses, conservatories, and many others thanks to the wide range of available products.

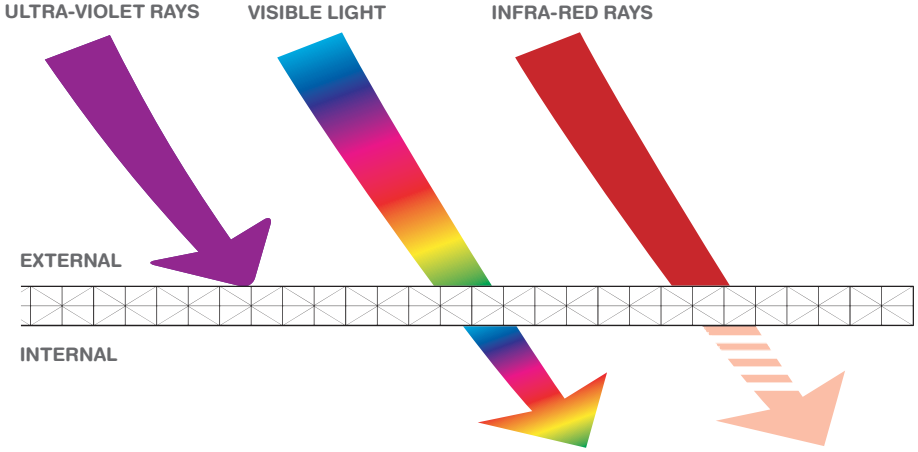


INTERNAL TEMPERATURE REDUCTION COMPARISON

Testing proves that products with a protective infra-red filter can significantly reduce internal heating.

NATURAL PROTECTION

The heat coming from solar heating is for the most part absorbed by the external surface, treated with IR absorbers, that limits radiation to the inside of the building and the consequent heating up.



U.V. PROTECTION
all products in polycarbonate by Dott. Gallina S.r.l. are UV protected and block out the harmful ultra-violet radiation

LIGHT TRANSMISSION
The PoliCarb®IR sheets and modular arcoPlus®IR panels transmit a higher quantity of light

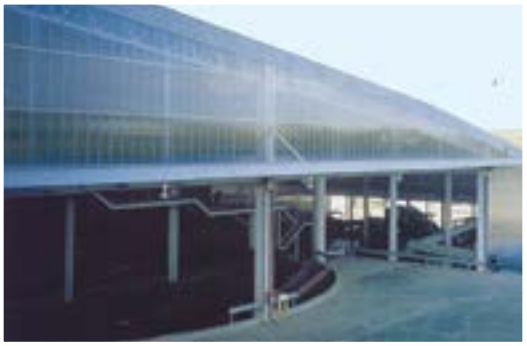
INFRA RED ENERGY
The PoliCarb®IR sheets and modular arcoPlus®IR panels transmit to the inside less infra-red energy

SOLAR CONTROL TO DEFEAT THE HEAT

The control of the temperature and the management of heat are essential elements in maintaining a desired level of comfort within buildings. They are also critical elements for cost control and to maximize energy savings. The products of the IR line absorb the part of the light relative to the infra-red rays (from 780 to 1400nm), effectively blocking the solar heat, while letting the solar light through. The result is a reduction of the internal transmission of heat and a reduction of the cost for cooling the area. In fact all the products from the IR line can contribute to reducing the temperature increase up to 25 with respect to other window products.

THE LASTING WARRANTY

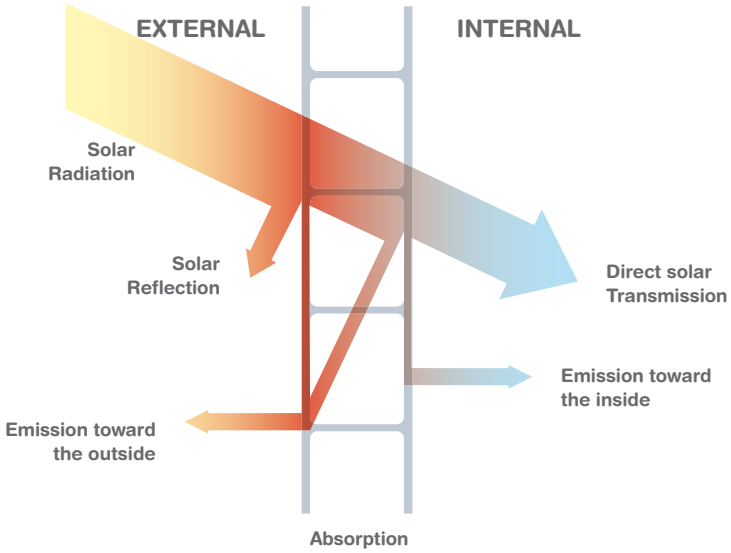
All the products in the IR have a written guarantee of 10 year against the reduction of the properties of light transmission, yellowing and breakage caused by hail.



ENERGY SAVING

The multi-wall structure of PoliCarb® and arcoPlus® offers a real advantage in terms of thermal insulation. Calculated according to the guidelines of DIN 4701, there is a significant difference in fuel consumption between an industrial building with glass windows and the same building with multiwall polycarbonate glazing.

ENERGY SAVING



CALCULATION OF FUEL SAVING

The following formula is the calculation of fuel savings:

$$E = \frac{\Delta K \bullet S \bullet Gg \bullet 24}{Pt \bullet h}$$

Where:

E	Yearly fuel saving (kg)
ΔK	Difference between thermal transmittance values of glass and polycarbonate (kcal/hm²°C)
ΔT	Average difference between indoor and outdoor temperature (14÷15 °C)
S	Windows surface (m²)
Gg	Seasonal heating factor (heated days per temperature average difference) (°C h)
24	Conversion factor
PT	Heating power of the employed fuel (kcal/kg)
h	Production of the heating plant (normal h=0,7)

ESTIMATE EXAMPLE : industrial shed

Location: Turin

(degree per day) 2570 • 24 = 61680 (degree per hour) — Gg • 24 = 62.808 °C h

Surface: 1,40 (height) x 100 (boundary development) — S = 140 m²

Difference "ΔK": between U-GLASS 27 et arcoPlus344x
(5,0 x 1,7) = 3,3 kcal/hm² °C — ΔK = 3,3 kcal/hm²°C

Fuel: oil-fire 10.200 kcal/kg — Pt = 10.200 kcal/kg

Plant production — h = 0,7

Therefore the yearly fuel saving will be:

$$E = \frac{3.3 \times 140 \times 62.808}{10.200 \times 0.7} = 4.064 \text{ kg}$$

LOWER HEATING POWER OF FUEL

Electric power	2.300	kcal/kWh
Oil-fired heating	10.200	kcal/kg
Methane	8.200	kcal/m³

SEASONAL HEATING FACTOR (DEGREE PER DAY)

Milan	2.340	°C
Rome	1.440	°C
Turin	2.570	°C
Palermo	690	°C

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USE AND MAINTENANCE

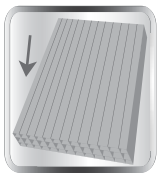
NEVER STORE THE MATERIAL IN A PLACE WHERE IT IS EXPOSED TO SUNLIGHT WHILE WRAPPED IN ITS PROTECTIVE FILM

INSTALL THE MATERIAL WITH THE U.V. PROTECTED SIDE FACING THE EXTERIOR AND REMOVE THE PROTECTIVE FILM AFTER INSTALLING

ALLOW FOR THERMAL EXPANSION OF THE MATERIAL

ONLY USE POLYCARBONATE-COMPATIBLE SILICONE IF NECESSARY

USE ADHESIVE ALUMINIUM TAPE TO SEAL THE AIR CELLS



ALWAYS PLACE THE SHEETS WITH THE AIR CELLS IN THE DIRECTION OF THE SLOPE

USE WATER AND NEUTRAL SOAP TO CLEAN THE SURFACES

USE SUITABLE HOISTING EQUIPMENT TO HANDLE THE MATERIAL

CLEANING

To clean sheets and panels we recommend the use of water and neutral detergent only.
Do not use abrasive products.

THERMAL EXPANSION

Polycarbonate is subject to thermal expansion of 0.065 mm/m°C.
When installing polycarbonate sheets and panels always allow enough room for expansion.
If anchoring systems are used these must consist of the specific brackets and connectors provided for each product.

HANDLING

Take all the appropriate precautions when handling the material to avoid accidental impacts and scratches on the surface which could spoil the material's appearance and undermine its mechanical properties.

STORAGE

Avoid exposure to direct sunlight and rain to prevent any excessive build-up of heat in the packaging or the formation of condensation in the cells.
Do not remove the protective film before installing, but immediately after installation.

SEALING

Only use neutral, polycarbonate-compatible silicone for sealing.

MODULAR SYSTEMS

2.1 INTERLOCKING SYSTEMS

This group of modular systems all have a tongue and groove connector system. The structure is specifically designed to ensure a weatherproof finish.
All systems are supplied complete with a range of accessories to ensure correct installation.
They are particularly suitable for roofing applications, continuous translucent glazing and false ceilings.

2.2 CONNECTOR SYSTEMS

This group includes all the modular systems provided with a specific connector, depending on the type of application.
All systems are supplied complete with a range of accessories to ensure correct installation.
They are particularly suitable in roofing for covering large areas, translucent façades and glazing applications.

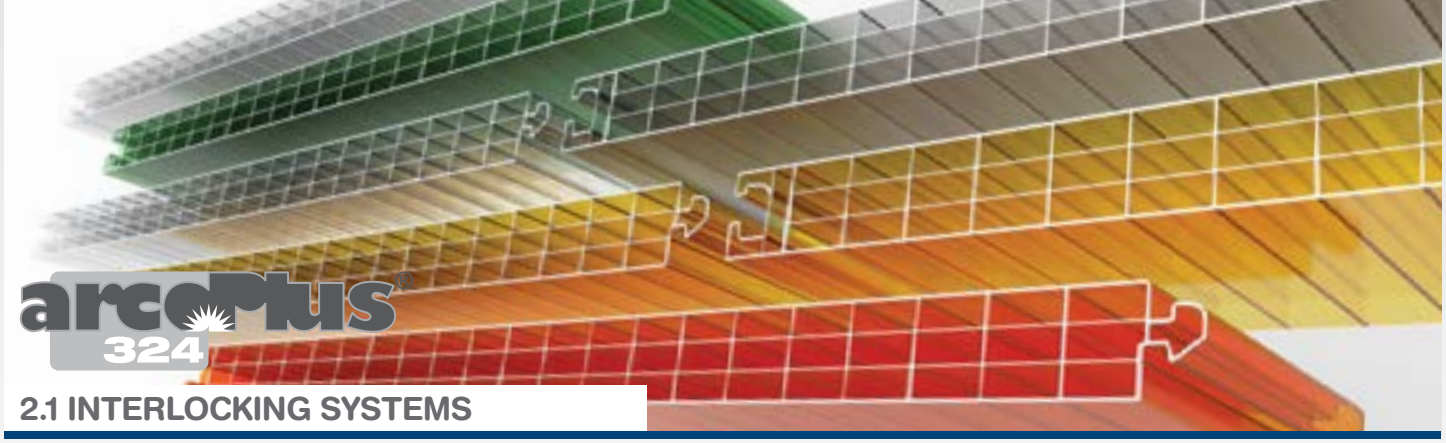
2.3 OVERLAPPING SYSTEMS

This group of wall and roofing products can be used in continuous applications or with other insulated metal panels and corrugated sheets or panels. Their structural design and the use of a specific range of accessories guarantee a weatherproof finish.

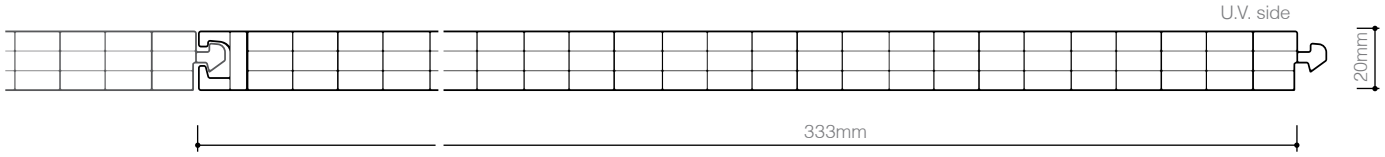
2.4 OPENING SYSTEMS

This group of products can be used with the modular interlocking systems to create opening windows.

All arcoPlus® systems include aluminium profiles and anchor systems to guarantee resistance to positive and negative wind loads while allowing for linear expansion.



2.1 INTERLOCKING SYSTEMS



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and glazing applications

CALEIDO AR IR UV TECH
ANTIGRAFF BC BICOLOR UV UV-MATT

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20mm
Structure	4 walls
Effective modular width	333mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,8 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®324 is a modular system of coextruded 4 walls polycarbonate panels with a thickness of 20mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®324 is not suitable for roofing applications.

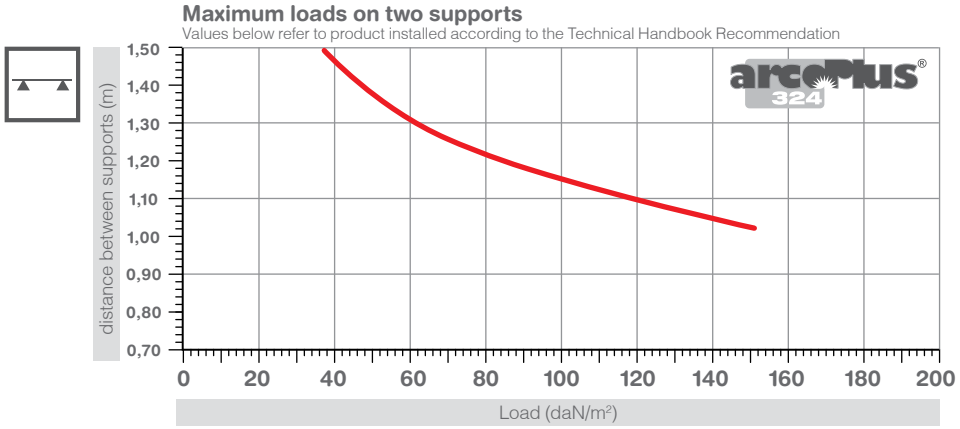
ADVANTAGES

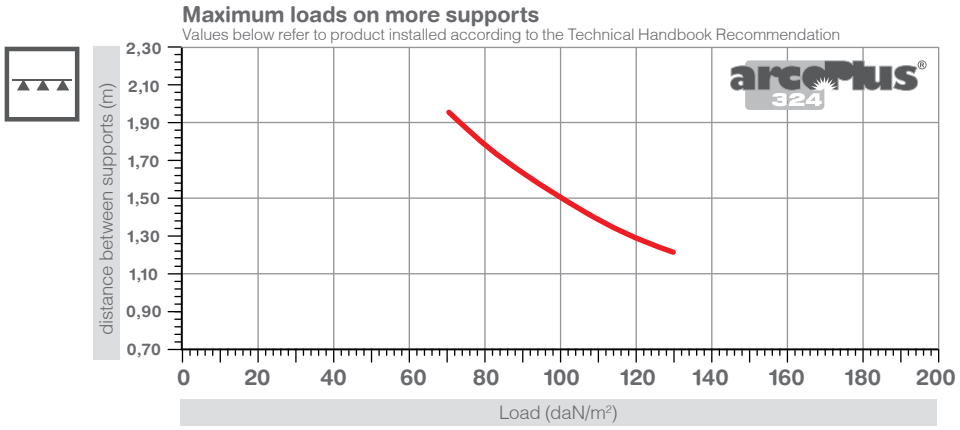
- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

- Vertical windows
- Translucent curtain walls

LOAD RESISTANCE



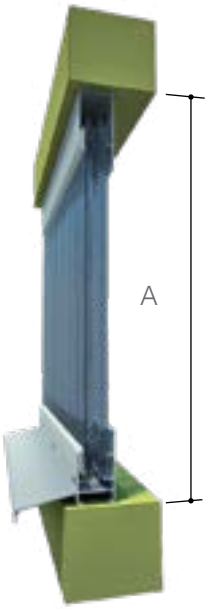


EASY AND LOW-COST INSTALLATION

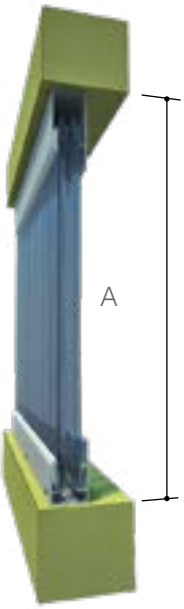
The 20mm-thick, 4 walls structure with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames, thus eliminating heat loss due to the thermal bridges caused by these structures.
The modular connection ensures a watertight seal for glazing with an inclination of up to 30°.
For installations exceeding 1.5m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed (see load resistance graph). This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion.

INSERTION OF PLATE
Insertion of stainless steel plates for anchorage to existing structures

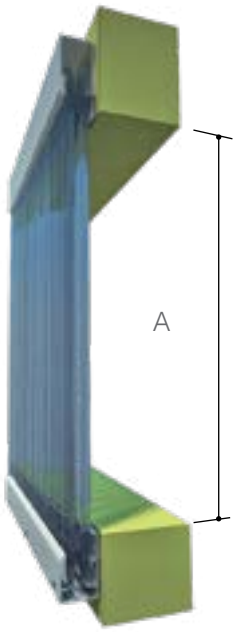
CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)



WITH EAVE
PL = A - 50 mm
A = opening measure

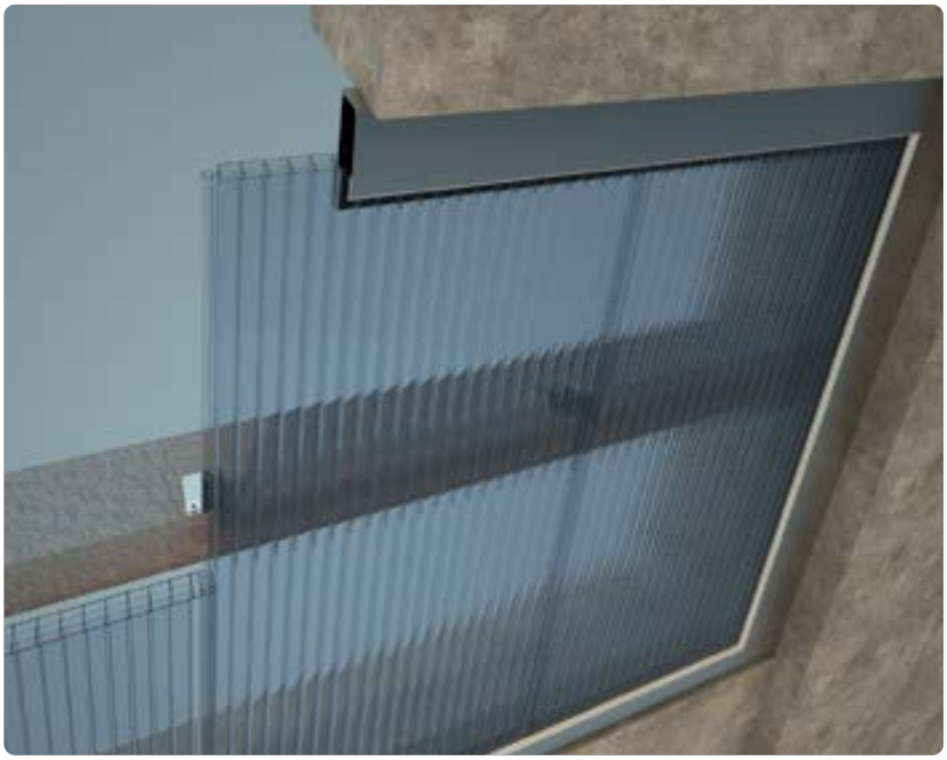


WITHOUT EAVE
PL = A - 40 mm
A = opening measure



OUTSIDE OF THE BUILDING
PL = A + 80 mm
A = opening measure

VERTICAL GLAZING
Construction of continuous transparent glazing, with section-breaker profile

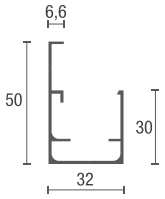


ACCESSORIES

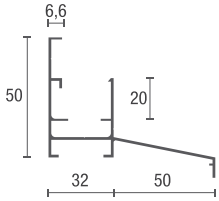
The system includes a complete range of aluminium profiles for installing the panels.
The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

METAL PROFILES

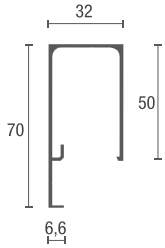
4062
Base AL profile



4064
Base AL profile
with eave



4061
Upper and side
AL profile



BASE PROFILE
Insertion of curtain wall panels on base profile, with gasket

VERTICAL WINDOW
Positioning of anchor plates on section-breaker profile

ACCESSORIES

4062
Base AL profile

4064
Base AL profile
with eave

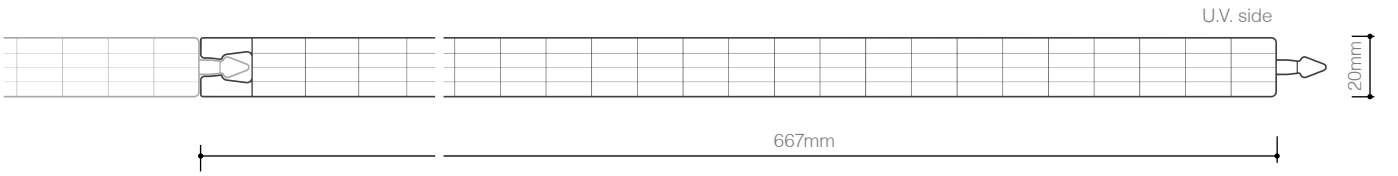
4061
Upper and side
AL profile

1169/B
Slip-coated rubber seal strip

4063
Stainless steel bracket

4066
Taping surcharge

2.1 INTERLOCKING SYSTEMS



Modular system of UV protected multiwall polycarbonate for vertical window applications

CALEIDO IR UV TECH ANTIGRAFF UV UV-MATT

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20mm
Structure	5 walls
Effective modular width	667mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

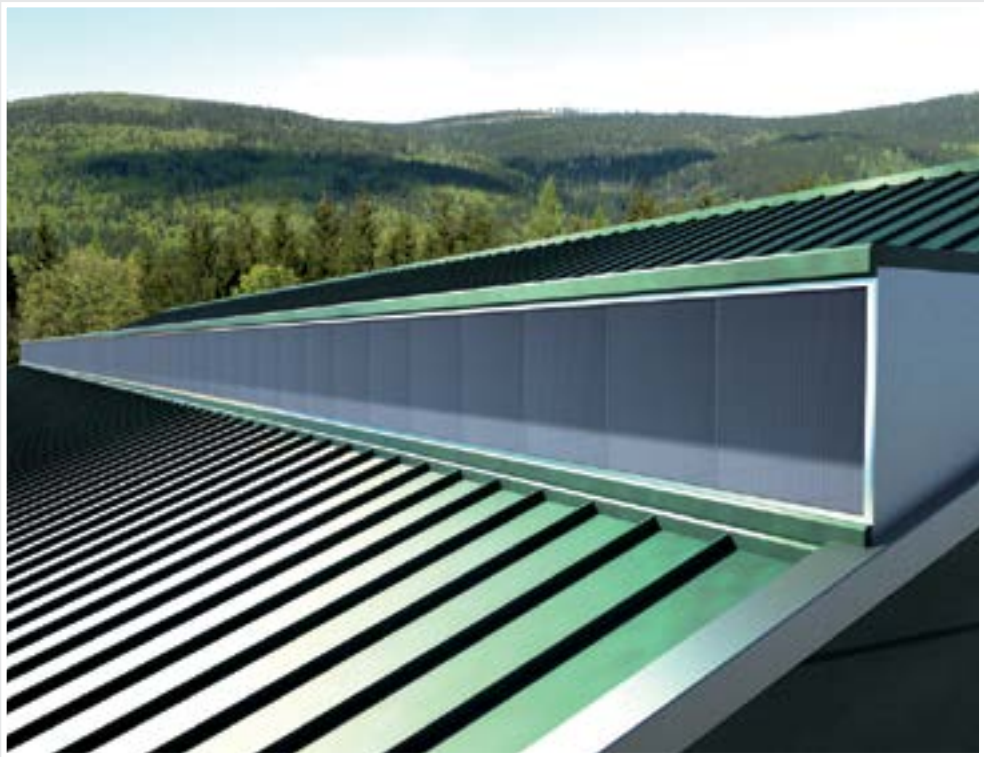
arcoPlus®625 is a modular system of coextruded 5 walls polycarbonate panels with a thickness of 20mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®625 is not suitable for roofing applications.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

- Vertical windows

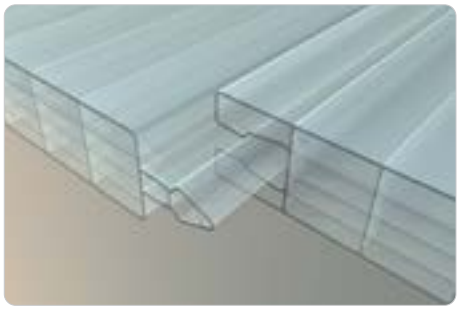


CONTINUOUS WINDOWS
Translucent continuous windows



ACCESSORIES

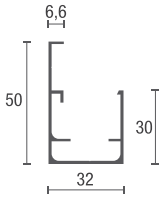
The system includes a complete range of aluminium profiles for installing the panels. The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.



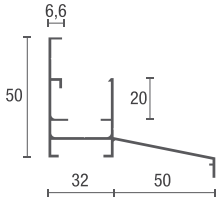
DETAIL JOINT
Detail joint male-female

METAL PROFILES

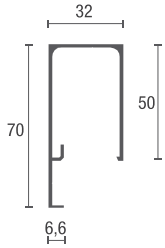
4062
Base AL profile



4064
Base AL profile
with eave



4061
Upper and side
AL profile



ACCESSORIES

4062
Base AL profile

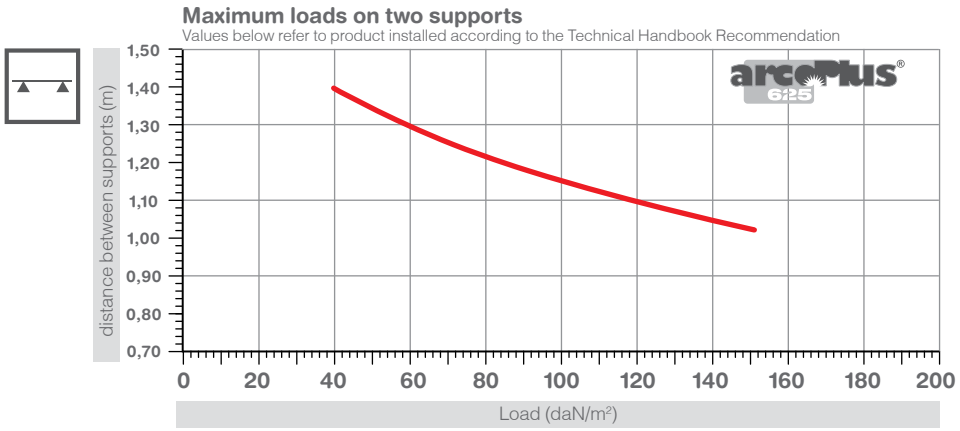
4064
Base AL profile
with eave

4061
Upper and side
AL profile

1169/B
Slip-coated rubber seal strip

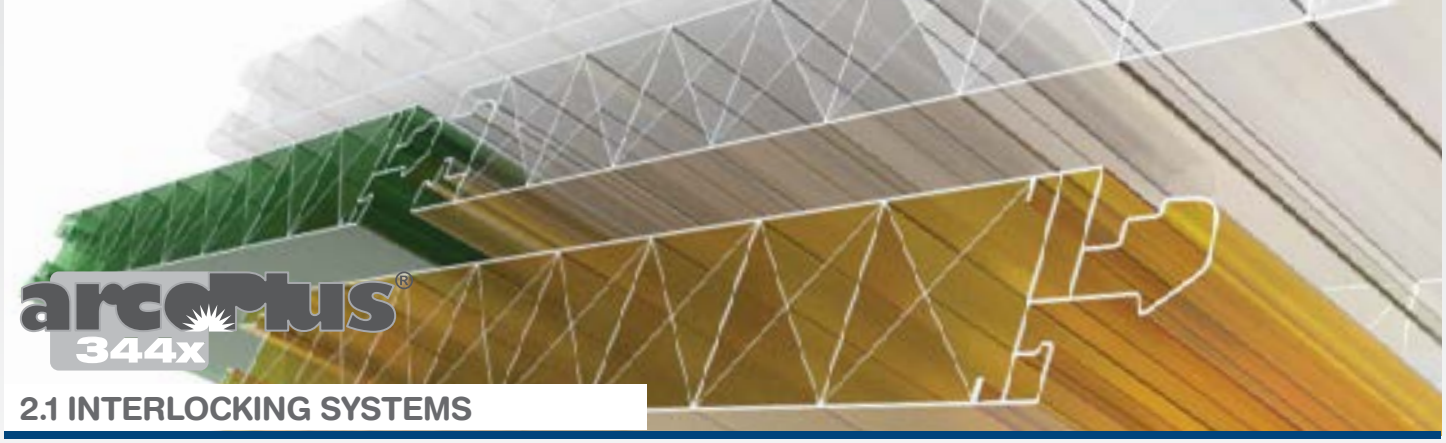
4327
Taping surcharge

LOAD RESISTANCE

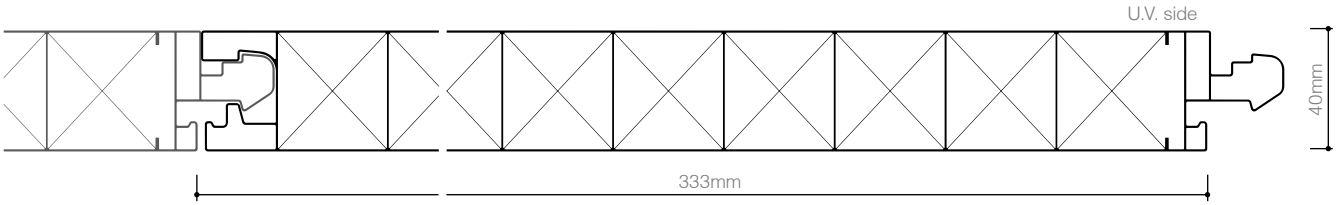


EASY AND LOW-COST INSTALLATION

The 20mm-thick, 5 walls structure with tongue and groove connection gives the panels remarkable flexural strength.
It also allows the panels to be installed without the use of metal reinforcement frames, thus eliminating heat loss due to the thermal bridges caused by these structures.
The modular connection ensures a watertight seal for glazing with an inclination of up to 30°.



2.1 INTERLOCKING SYSTEMS



Modular system of multiwall UV protected polycarbonate for windows and translucent roofing applications

CALEIDO UV TECH ANTIGRAFFI UV UV-MATT

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	40mm
Structure	4 walls
Effective modular width	333mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	19 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®344x is a modular system used in the residential and industrial building sectors. It is suitable for use in new buildings and for renovation and maintenance projects.
The system consists of coextruded 4 walls polycarbonate panels with a thickness of 40mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
arcoPlus®344x can be used for roofing applications with a minimum slope of 7%.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- High load resistance

APPLICATIONS

- Vertical windows
- Translucent curtain walls

CERTIFICATION

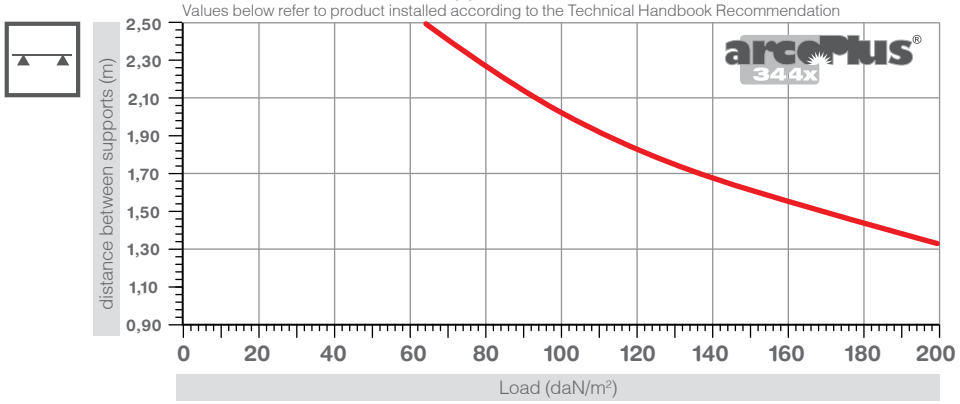
CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

Document Technique d'Application
n°2/14-1610 *V1 published in 27/07/2016

LOAD RESISTANCE

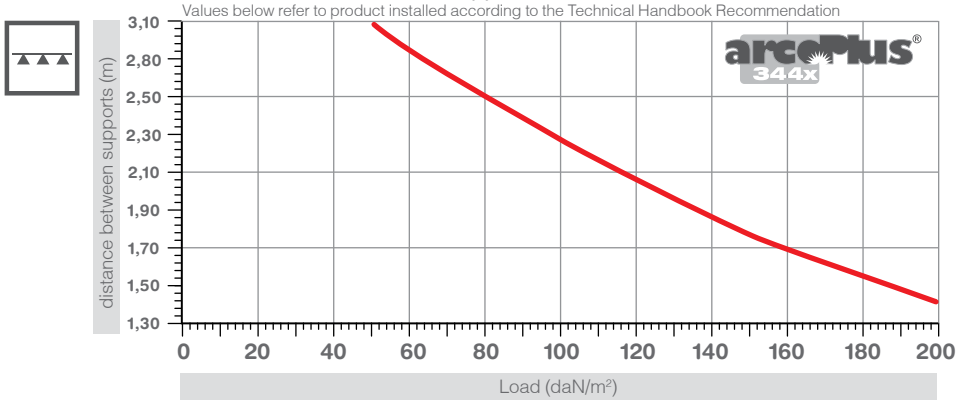
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



EASY AND LOW-COST INSTALLATION

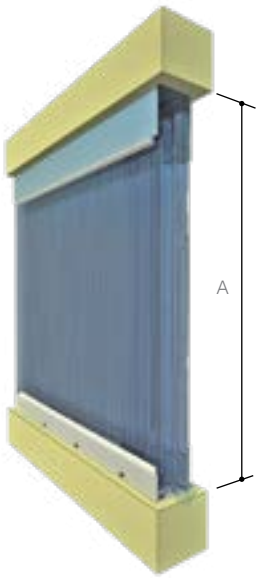
The 40mm-thick, 4 walls design with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames (continuous windows), thus eliminating heat loss due to the thermal bridges caused by these structures (discontinuous windows).

For installations exceeding 2.2m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed.
This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion (see load resistance graph).

CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)

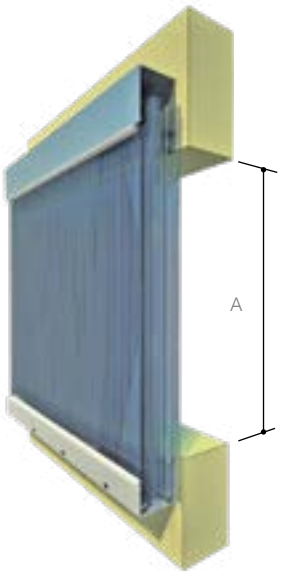
WITH EAVE

LP = A - 50 mm
(base profile without TT)
LP = A - 70 mm
(base profile with TT)
A = opening measure



WITHOUT EAVE

LP = A - 45 mm
(base profile without TT)
LP = A - 60 mm
(base profile with TT)
A = opening measure



OUTSIDE OF THE BUILDING

LP = A + 95 mm
(profile without TT)
A = opening measure

TRANSLUCENT CURTAIN WALLS
Realization vertical translucent curtain walls

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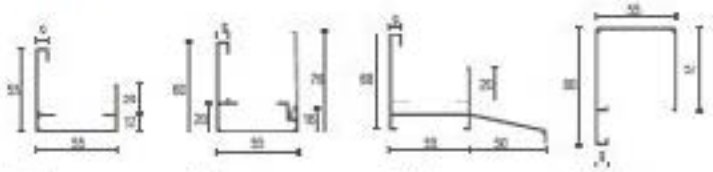
METAL PROFILES



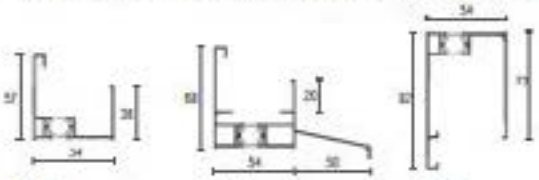
4047
Base
AL profile

4140
Base/side AL profile
with flap frontal opening

4046
Base AL profile
with drip sill

4045
Upper/side
AL profile

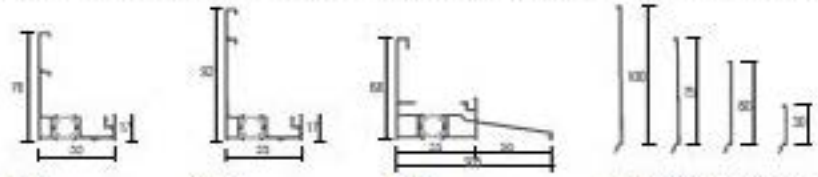
METAL PROFILES with thermal break



4587
Base
AL profile TB

4590
Base AL profile TB
with drip sill

4585
Upper/side
AL profile TB



4597
Perimetral short
AL snap profile TB

4598
Perimetral high
AL snap profile TB

4595
Base AL snap profile TB
with drip sill

4275-4743-4742-4755
Flap AL for profiles:
4597-4595-4598

ACCESSORIES

In addition to a complete range of aluminium profiles (also available as thermally insulated) for installing the panels, the system also includes opening windows (manually operated or motorised) to ventilate the building. The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.

This allows correct ventilation and prevents soiling on the inside.

IMPORTANT:
The fixing of the Flap profile 4725 must be carried out with adhesive seal tape 4329 and EN ISO 15481 4,2x13 A2 self-drilling screws.

INSERTION OF PLATE
Insertion of aluminium plates for anchorage to existing structures

BASE PROFILE
Detail of curtain wall, insertion in base profile

ACCESSORIES

4047
Base AL profile

4046
Base AL profile
with drip sill

4140
Base/side AL profile
with flap frontal opening

4045
Upper/side
AL profile

4587
Base
AL profile TB

4590
Base AL profile TB
with drip sill

4585
Upper/side
AL profile TB

4597
Perimetral short
AL snap profile TB

4595
Base AL snap profile TB
with drip sill

4598
Perimetral high
AL snap profile TB

4755 - H.30
4742 - H.50
4743 - H.75
4275 - H.100
Flap AL for profiles 4597-4595-4598

4050
Alu bracket

4052
Inox bracket

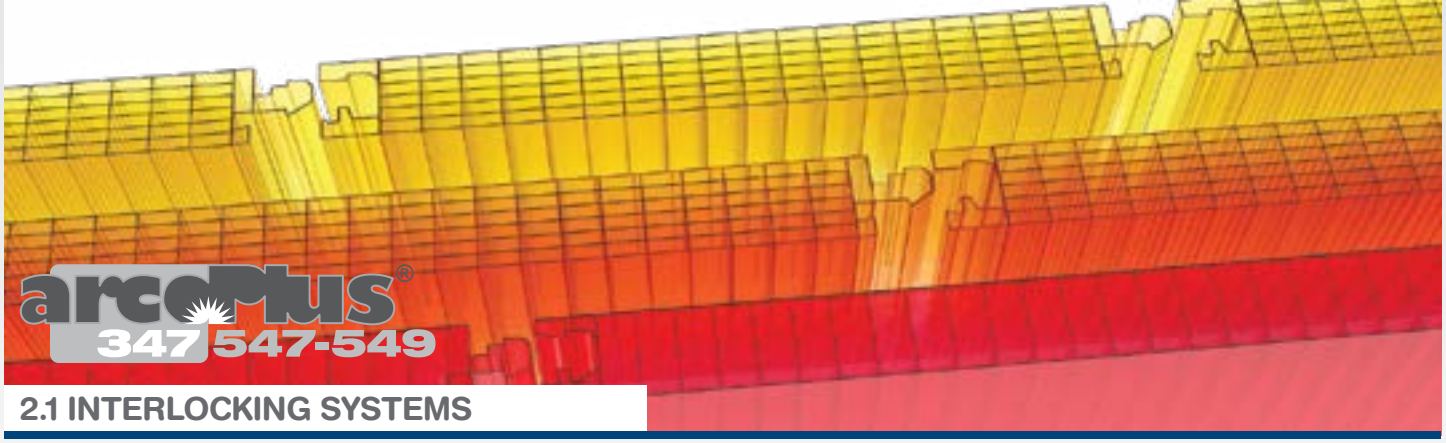
4312
Joining eclipse
for base profile

1169/B
Slip-coated rubber
seal strip

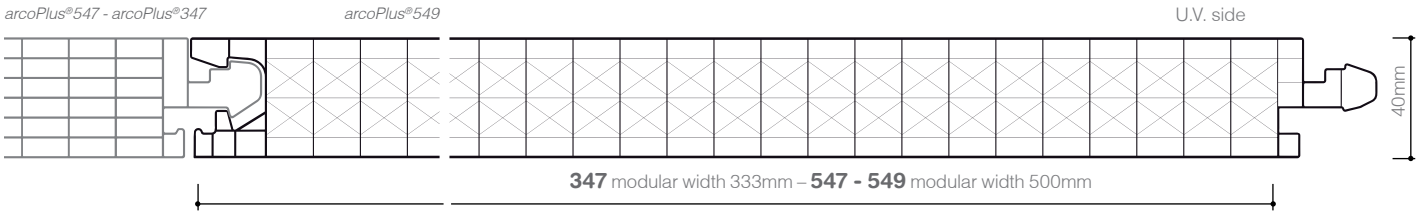
1169/B/AGS
Overlap Slip-coated
rubber seal strip

4329 (+4275)
Single-side self-adhesive
PE-LD seal strip 4*15

4108
Taping scrivange



2.1 INTERLOCKING SYSTEMS



Modular system of multiwall UV protected polycarbonate for windows and translucent roofing applications

CALEIDO AR IR UV TECH
ANTIGRAFF BC BICOLOR UV UV-MATT

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	40mm
Structure	7 walls (347-547) - 9 walls (549)
Modular width	333mm (347)–500mm (547-549)
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,1 (347-547) W/m²K
	1,0 (549) W/m²K
Acoustic insulation Rw (ISO 717-1)	21 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®547 and arcoPlus®549 are modular systems of coextruded 7 walls and 9 walls polycarbonate panels with a thickness of 40mm, aluminium profiles, accessories and opening windows, designed for simple and versatile use.
All the systems can be used for roofing applications with a minimum slope of 7%.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- High load resistance

APPLICATIONS

- Vertical windows
- Translucent curtain walls

CERTIFICATIONS

arcoPlus347-547-549

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

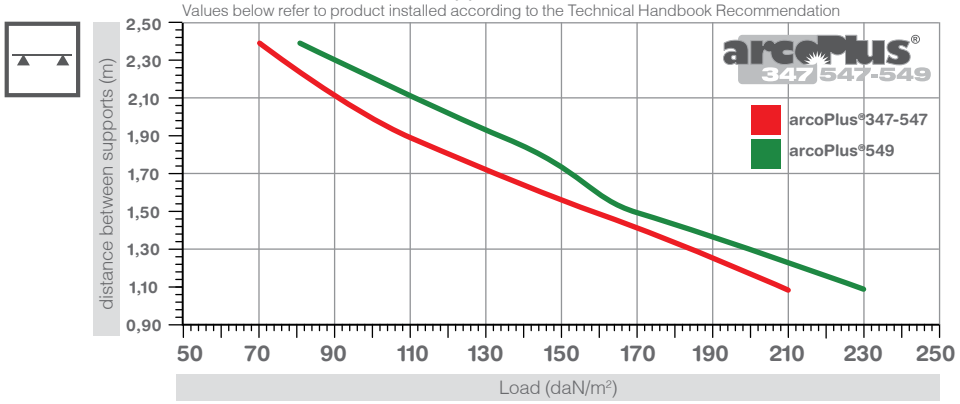
Document Technique d'Application n°2/14-1610 *V1
published 27/07/2016 and extended 07/02/2020

arcoPlus547
DIBt Ab Zulassung n°Z-10.-480
published 23/12/2014 nd extended 24/12/2019

LOAD RESISTANCE

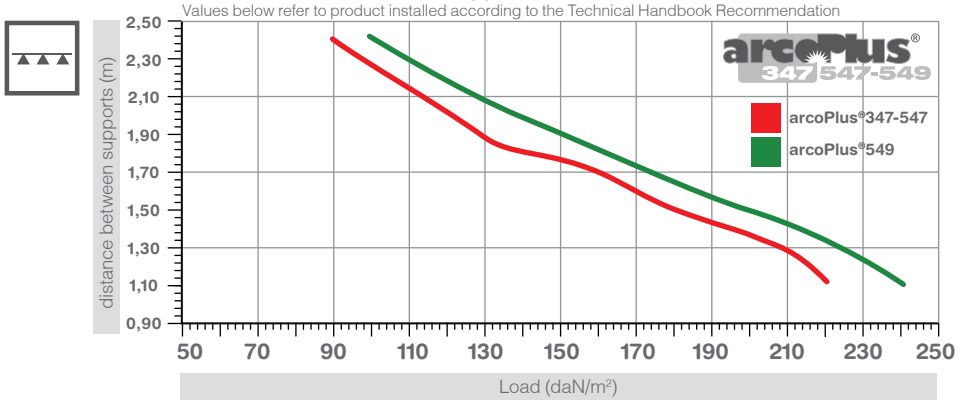
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



EASY AND LOW-COST INSTALLATION

The 40mm-thick, 7 walls and 9 walls design with tongue and groove connection gives the panels remarkable flexural strength. It also allows the panels to be installed without the use of metal reinforcement frames (continuous glazing), thus eliminating heat loss due to the thermal bridges caused by these structures (discontinuous glazing).

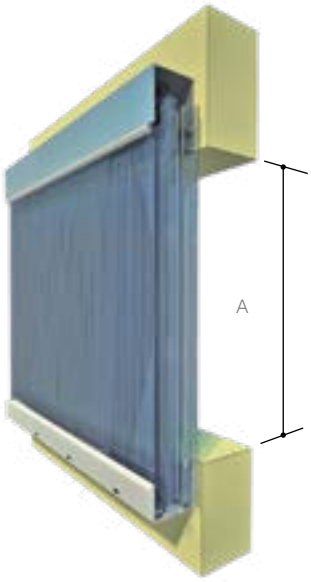
For installations exceeding 2.2m, a suitable section-breaker profile must be installed to which the arcoPlus® panels can then be fixed. This is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion (see load resistance graph).

PROFILES

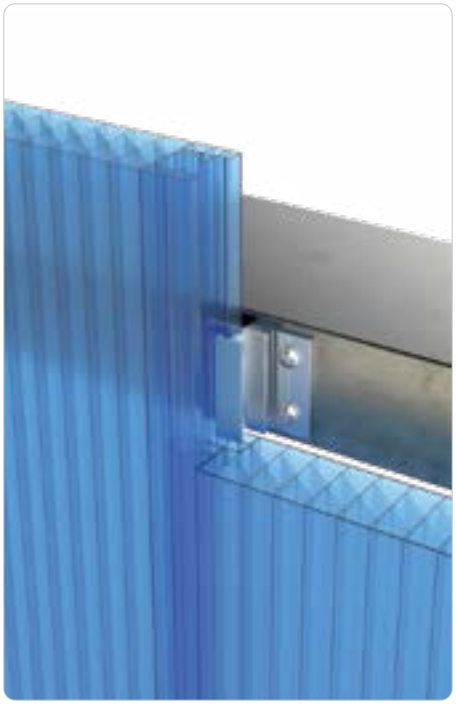
CALCULATION AND INSTALLATION EXAMPLES OF PANEL LENGTH (PL)

WITH EAVE
LP = A - 50 mm
(base profile without TT)
LP = A - 70 mm
(base profile with TT)
A = opening measure

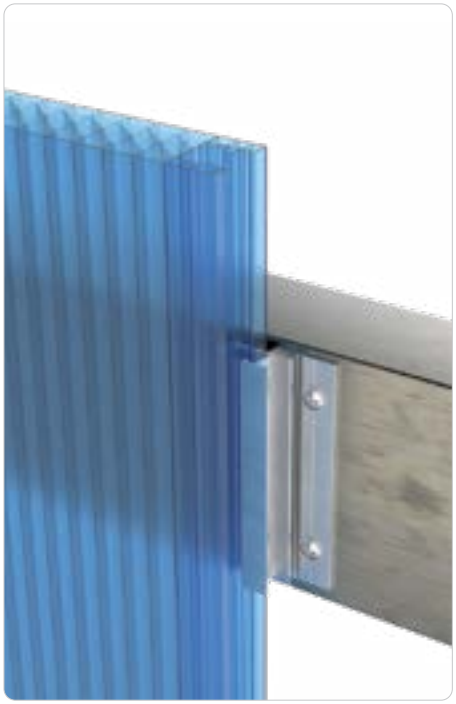
WITHOUT EAVE
LP = A - 45 mm
(base profile without TT)
LP = A - 60 mm
(base profile with TT)
A = opening measure



OUTSIDE OF THE BUILDING
LP = A + 95 mm
A = opening measure

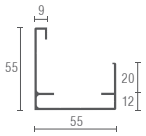


ALUMINUM BRACKET JOINT
Anchorage to existing structures by inserting aluminum bracket code 4050/60

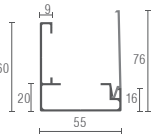


REINFORCED ALUMINUM BRACKET JOINT
Anchorage to existing structures by inserting aluminum bracket code 4050/120

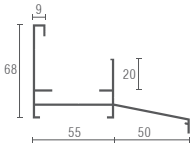
METAL PROFILES



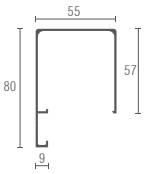
4047
Base
AL profile



4140
Base/side AL profile
with flap frontal opening

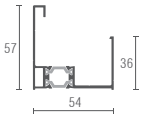


4046
Base AL profile
with drip sill

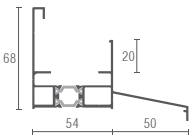


4045
Upper/side
AL profile

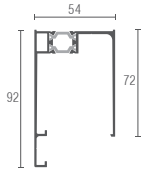
METAL PROFILES with thermal break



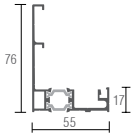
4587
Base
AL profile TB



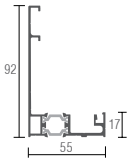
4590
Base AL profile TB
with drip sill



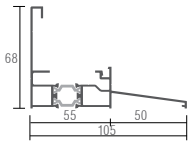
4585
Upper/side
AL profile TB



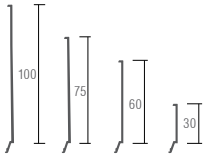
4597
Perimetral short
AL snap profile TB



4598
Perimetral high
AL snap profile TB



4595
Base AL snap profile TB
with drip sill



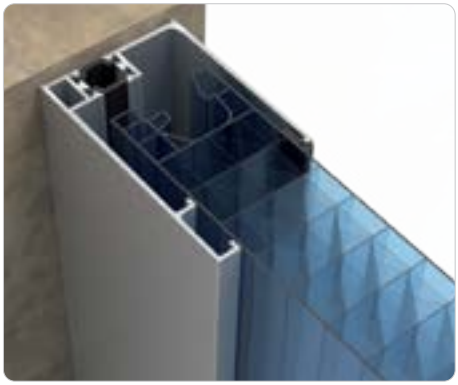
4275-4743-4742-4755
Flap AL for profiles:
4597-4595-4598

ACCESSORIES

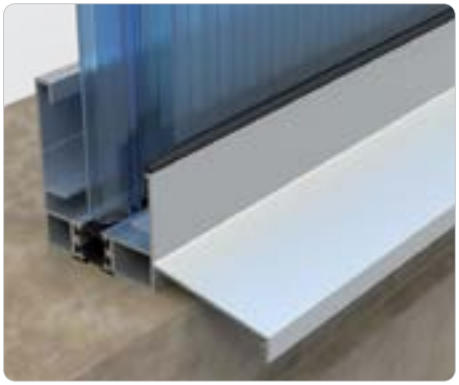
In addition to a complete range of aluminium profiles (also available as thermally insulated) for installing the panels, the system also includes opening windows (manually operated or motorised) to ventilate the building. The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.

This allows correct ventilation and prevents soiling on the inside.

IMPORTANT:
The fixing of the Flap profile 4725 must be carried out with adhesive seal tape 4329 and EN ISO 15481 4,2x13 A2 self-drilling screws.



SIDE PROFILE
Detail side profile TT in AL



BASE PROFILE WITH TT
Detail base profile TT with eave in AL

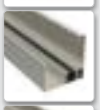
ACCESSORIES

4047
Base AL profile

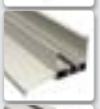
4046
Base AL profile
with drip sill

4140
Base/side AL profile
with flap frontal opening

4045
Upper/side
AL profile



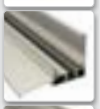
4587
Base
AL profile TB



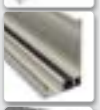
4590
Base AL profile TB
with drip sill

4585
Upper/side
AL profile TB

4597
Perimetral short
AL snap profile TB



4595
Base AL snap profile TB
with drip sill



4598
Perimetral high
AL snap profile TB

4755 - H.30
4742 - H.60
4743 - H.75
4275 - H.100
Flap AL for profiles: 4597-4595-4598

4050/60
4050/120
Alu bracket 60/120mm

4052
Inox bracket

4312
Joining eclipse
for base profile

1169/B
Slip-coated rubber
seal strip

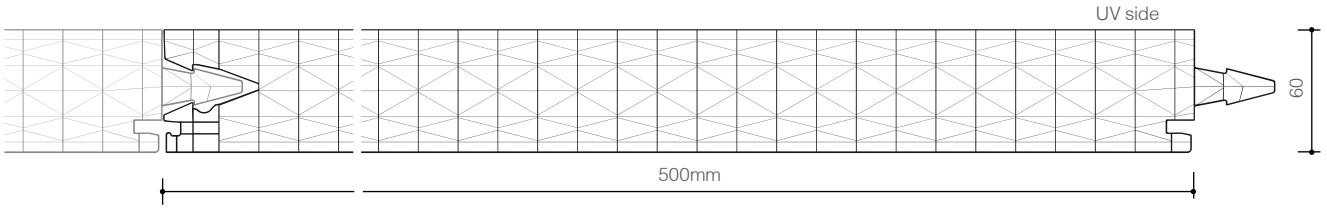
1169/B/AGS
Overlap Slip-coated
seal strip

4329 (+4275)
Single-side self-adhesive
PE-LD seal strip 4*15

4108
Taping surcharge

arcoWall® 5613

2.1 INTERLOCKING SYSTEMS



Modular system of multiwall UV protected polycarbonate for vertical translucent walls

CALEIDO IR UV TECH ANTIGRAFF AR BC BICOLOR UV UV-MATT

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	60mm
Structure	13 walls
Modular width	500mm
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	0,74 W/m²K
Acoustic insulation Rw (ISO 717-1)	22 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
UV rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoWall®5613 is a modular system of coextruded 13 walls polycarbonate panels with a thickness of 60mm, and exclusive aluminum profiles for variable solutions that can be customized for the needs of any project.

The self-bearing translucent walls system, arcoWall®5613, comes from the experience of over 50 years of our company. We are constantly engaged in exploring alternatives in the building market as well as the creation of unique and innovative systems.

ADVANTAGES

- Easy and low-cost installation
- Thermal bridge interruption
- Can be applied to the openable systems
- Light transmission
- High insulation coefficient
- High wind resistance
- Fire reaction EN 13501-1 EuroClass B-s1,d0

APPLICATIONS

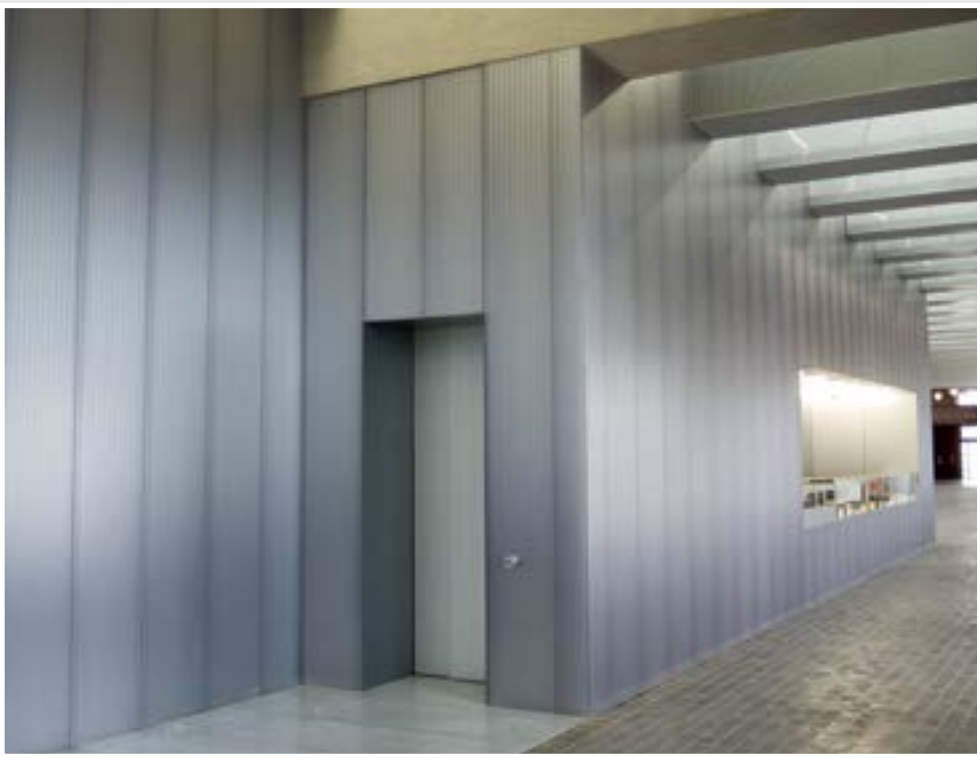
- High-performance continuous facades
- Vertical opening windows
- Translucent curtain walls

CERTIFICATIONS

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

Document Technique d'Application n°2/16-1764
published in 05/06/2017 and extended 07/02/2020

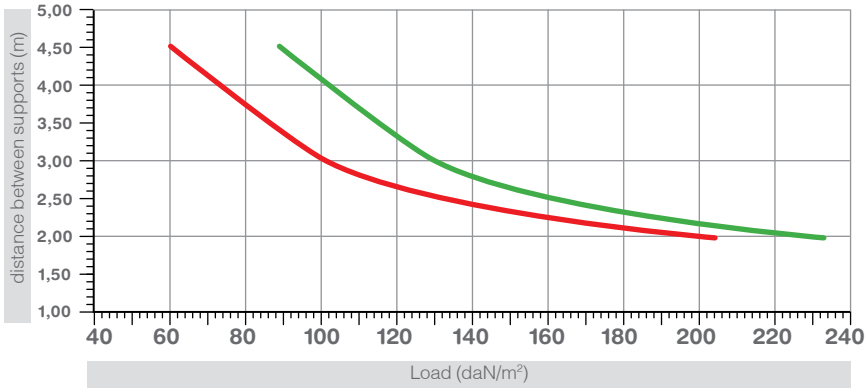
DIBt Ab Zulassung n°Z-10.1-662
published in 18/05/2016



LOAD RESISTANCE

Maximum loads

Values below refer to product installed according to the Technical Handbook Recommendation



WALL SYSTEM

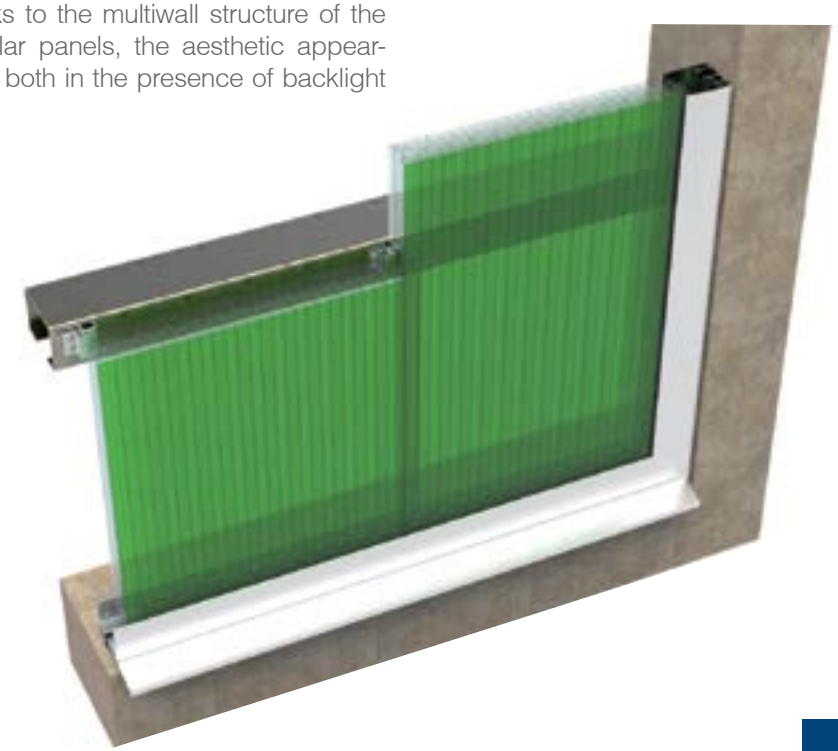
arcoWall®5613 allows the realization of real "translucent walls" with high thermal and acoustic characteristics without width limits and without the need for secondary support structures for spans up to 3.5m in height.

For installations exceeding 3.5m, a suitable section-breaker profile must be installed to which the arcoWall®5613 panels can then be fixed. It is done using the specific brackets to give the system the necessary resistance to negative wind load and permit sliding due to thermal expansion.

Thanks to the multiwall structure of the modular panels, the aesthetic appearance, both in the presence of backlight and of grazing light, is extremely unique. The chromatic effects can be modulated endlessly in terms of coloring and of light transmission.

The external and internal surfaces can be of different colors, which allows managing the light filter according to the needs of natural lighting.

The inner surface can be coextruded with an anti-reflective treatment, which is highly effective in reducing the unpleasant effects of artificial light reflections.



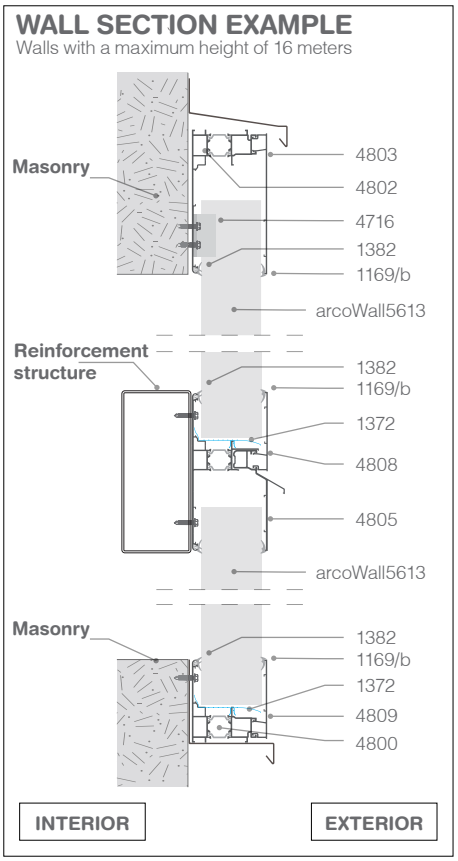
HIGHER AND HIGHER: arcoWall®
SPECIAL SYSTEM TO ACHIEVE INFINITE VERTICAL FAÇADE

With the aim to best meet the design-buliding requirements, we present the new series of profiles conceived specifically for achieving translucent facades with extra height, which could be impossible to realize before now. Thanks to the new aluminum profiles, our polycarbonate panels arcoWall® become the ideal solution for vertical applications with **oversize heights...** Furthermore do not forget the infinite possibilities offered by special treatments to customize the coloring or surface finish of panels, giving freedom to architectural creativity.

UPPER PROFILE FOR OVERSIZE EIGHTS
With straight flap

HORIZONTAL JOINING PROFILE
With straight flap

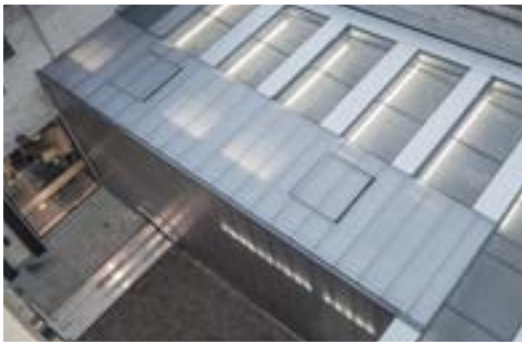
BASE/SIDE PROFILE
With straight flap



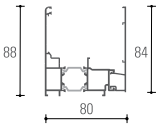
- Installing the special upper-profile in aluminium for **oversize lenght complete with the upper plane flap (cod. 4802+4803)**, you can realize translucent vertical curtain-walls with a maximum height of up to 16 meters, placing full size panels of such a length without any horizontal interruptions

- The additional inclusion in the façade-paneling of the horizontal joining profile (cod. 4802+4803+4808+4805) allows to achive facades with infinite height.

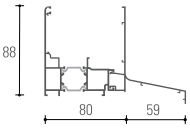
info@gallina.it



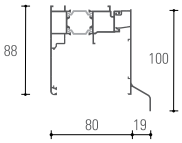
METAL PROFILES



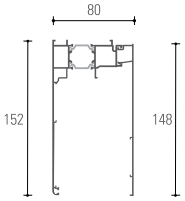
4800+4809
ALU base/upper/side profile with thermal break for th.60mm panel with straight flap



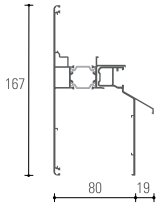
4800+4831
ALU base/upper/side profile with thermal break for th.60mm panel with base straight flap with drip sill



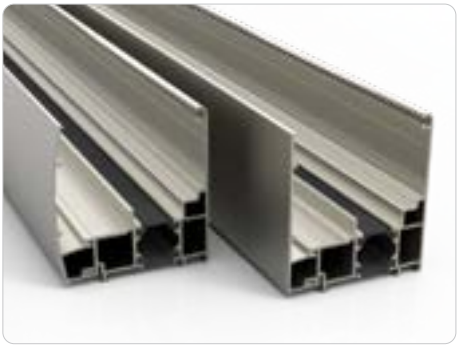
4800+4819
ALU base/upper/side profile with thermal break for th.60mm panel with upper straight flap with drip sill



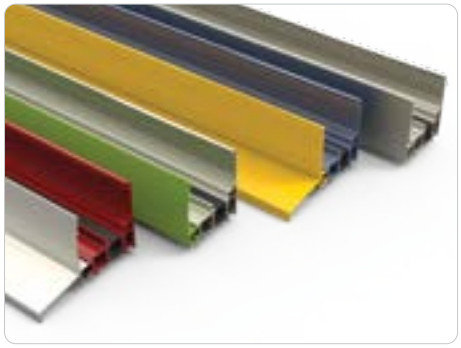
4802+4803
Upper snap profile TB th.60mm for OVERSIZE HEIGHTS with straight flap



4805+4808
Horizontal TB joining profile for OVERSIZE HEIGHTS for panel th.60mm with base straight flap with drip sill



DIFFERENT TYPES OF FLAPS
Curved and straight flaps

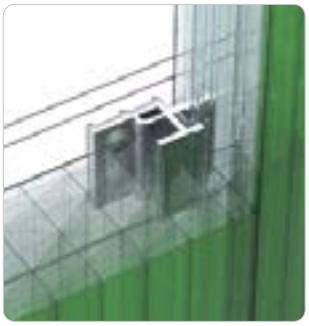


DIFFERENT COLORS OF PROFILES
Diversify the color between the inner and outer side

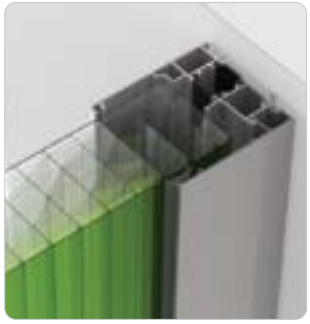
ACCESSORIES

The air cells of the polycarbonate panels must be sealed using vented aluminum tape. This permits correct ventilation and prevents soiling on the inside of the panels. In order to ensure maximum thermal insulation and respect for the Window-to-Wall Ratio (WWR), there are available openable systems arcoWall®5613 realized with innovative aluminum profiles with thermal break. Thanks to the modularity of frame profiles 4800/4832/4846, it is possible to choose both the shape and the color of the front flap. While maintaining the same functionality, all 3 versions can be provided with curved or straight silhouette, depending on the design needs.
In addition to standard anodized surface-finish, the profiles can be painted with any shade. Moreover an additional feature allows to diversify the color between the indoor and outdoor side by giving two different nuances for base profile (visible in indoor environments) and for flap (exposed to the outside).

JOINING PROFILES WITH FLAT ALIGNMENT
Flat aligner for base



ALU BRACKET COD.4715
For anchoring panels to intermediate structures



SIDE DETAIL COD.4800+4809
profile with straight flap

ACCESSORIES

4800
ALU base/upper/side profile with thermal break for th.60mm panel

4809 (+4800)
Base/side straight flap

4831 (+4800)
Base straight flap with drip sill

4819 (+4800)
Upper straight flap with drip sill

4801 (+4800)
Upper curved flap with drip sill

4804 (+4800)
Base/side curved flap

4807 (+4800)
Base curved flap with drip sill

4802+4803
Upper snap profile TB th.60mm for OVERSIZE HEIGHTS

4805+4808
Horizontal TB joining profile for OVERSIZE HEIGHTS for panel th.60mm

4715/60
4715/120
Alu bracket length 60/120mm

4716 (+4802)
Alu bracket length 45mm

1372
Internal PE base dripping eave

4828
Flat aligner for base TB profiles th.60mm

1382
Snap-fitted rear seal

1384
Sled-scroll rear seal

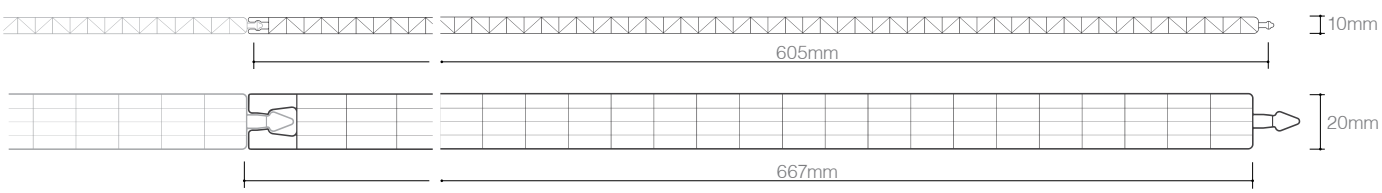
1169/b
Slip-coated rubber seal strip

4951
Taping surcharge

Velario®

613 | 10mm
20-5 | 20mm

PROFILE



Modular system of multiwall polycarbonate for false ceilings and partitions WITHOUT UV PROTECTION

PRODUCTION STANDARDS

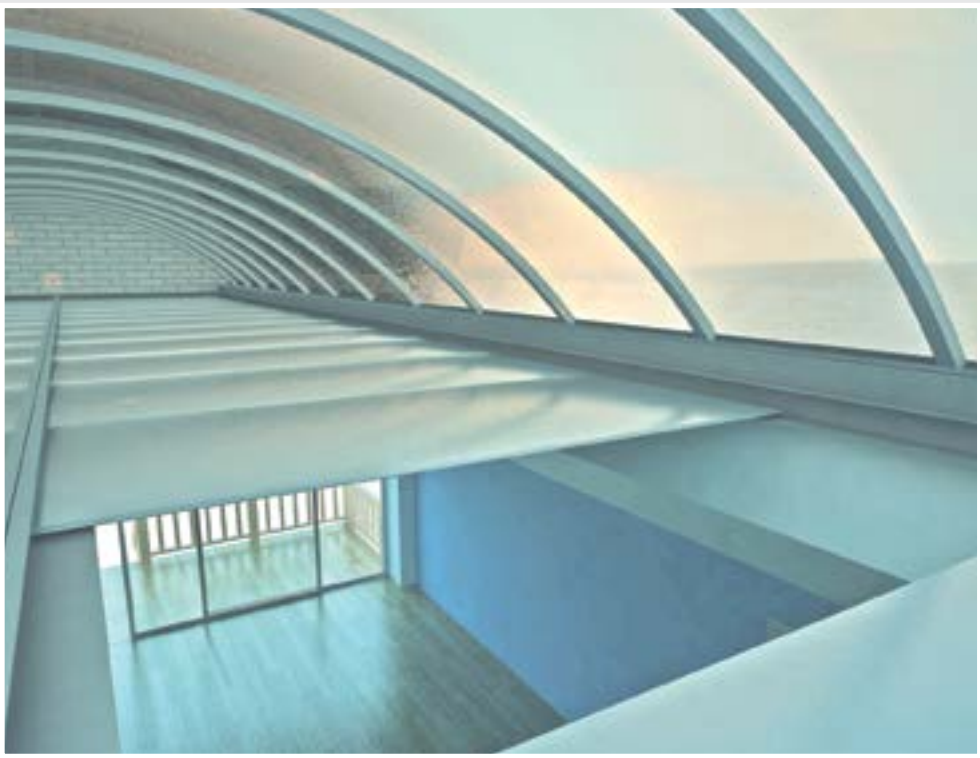
	Velario®613	Velario®20-5
Thickness	10mm	20mm
Structure	3 walls	5 walls
Effective modular width	605mm	667mm
Panel length	no limit	no limit

TECHNICAL FEATURES

	Velario®613	Velario®20-5
Thermal transmittance U	2,7 W/m²K	1,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB	16 dB
Linear thermal expansion	0,065mm/m°C	0,065mm/m°C
Temperature range	-40°C +120 °C	-40°C +120 °C
Fire reaction EN 13501-1	EuroClass B-s1,d0	EuroClass B-s1,d0

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Heat insulation
- Self-supporting



APPLICATIONS

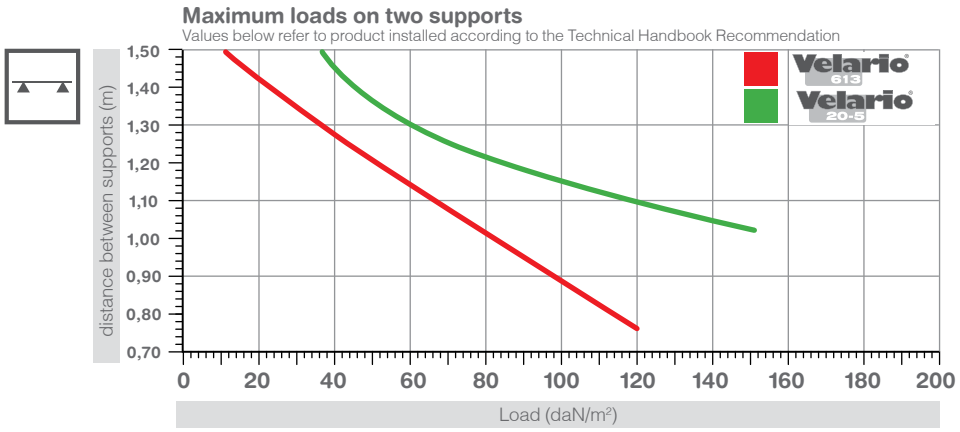
- Room partitions
- False ceilings

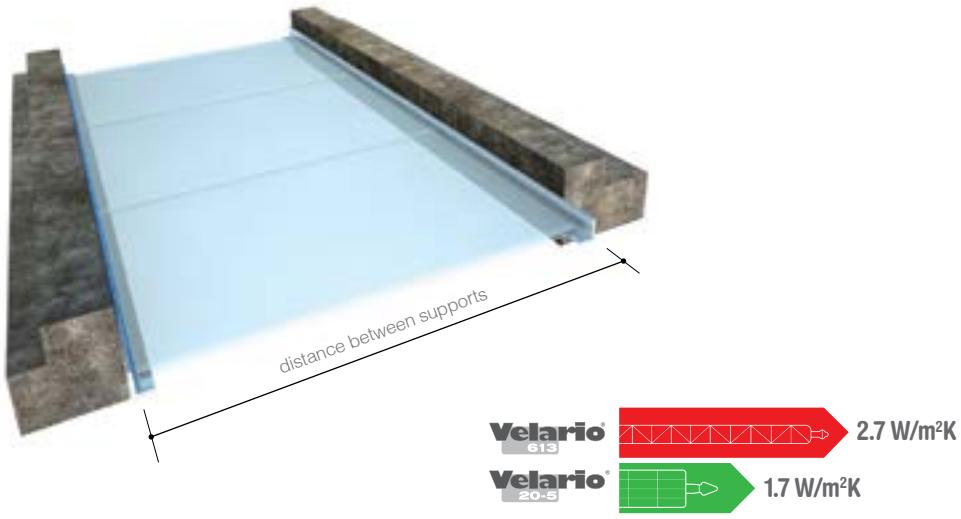
DESCRIPTION

Velario®613 and Velario®20-5, are modulars systems used in residential and industrial buildings, for new buildings as well as for renovation and maintenance operations.

It consists of polycarbonate panels with male-female connection.
They are ideal for all those cases where a thermal insulation is required with a rapid and simple installation.

LOAD RESISTANCE





THE CHOICE OF PROFILE

The indicated diagram shows the maximum recommended distance based on the type of profile used. The choice of the system to be used is therefore in function of the distance between the support and the value of insulation requested.

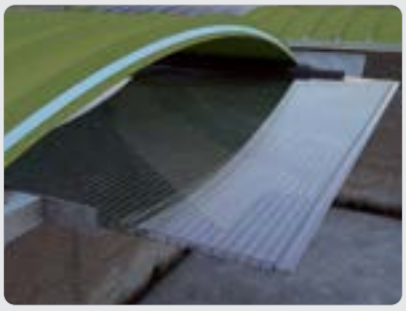
To avoid soiling the inside of the cells, it is recommended to request the product taped or thermowelded at the ends.

ACCESSORIES

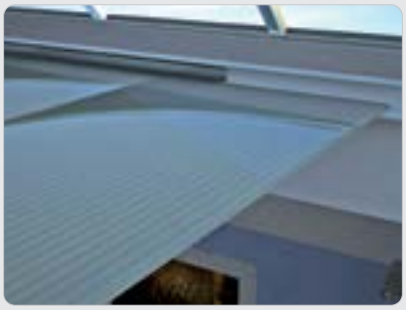
4226 (Velario613)
Thermowelding

4073 (Velario613)
Aluminium tape

4327 (Velario20-5)
Aluminium tape



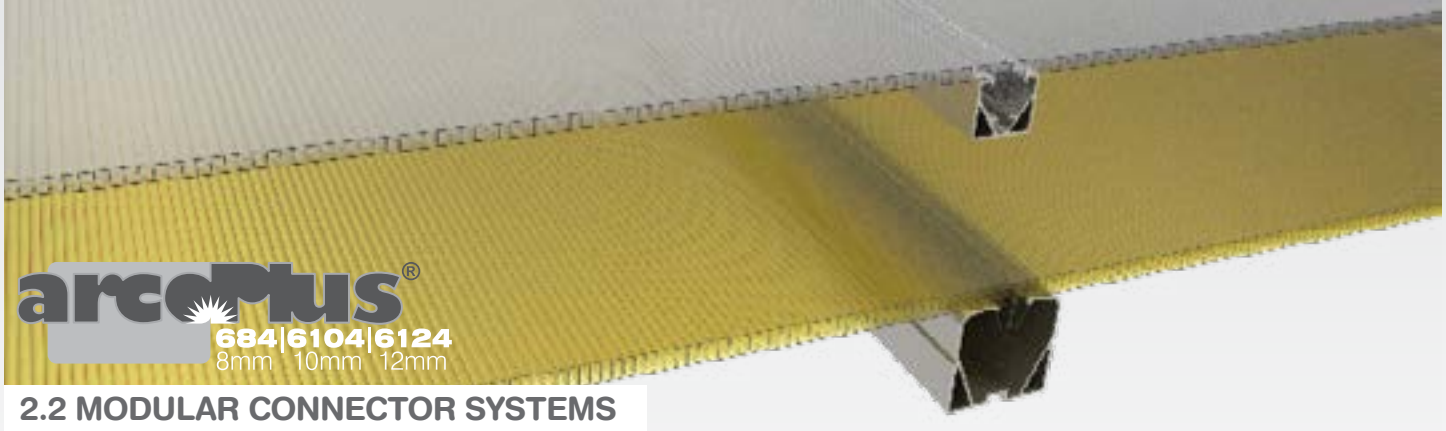
VELARIO
Detail Velario metal roofing



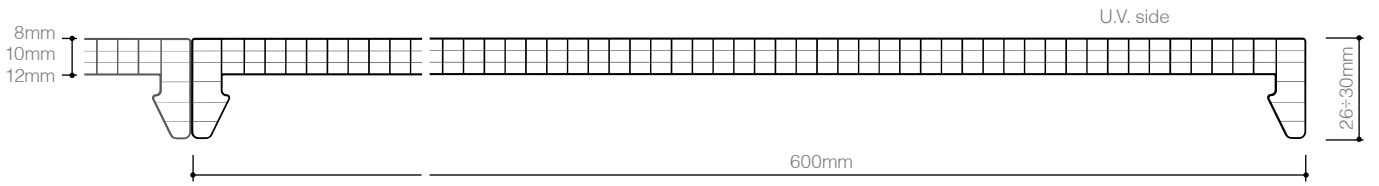
FALSE CEILING
detail anchorage panels

arcoPlus® 613

Modular system of UV protected multiwall polycarbonate for vertical window applications



2.2 MODULAR CONNECTOR SYSTEMS



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing applications

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · RF REFLECTO · UV TECH · AG ANTIGRAFF · UV UV-MATT · AR

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	8-10-12mm
Structure	4 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	3,0 - 2,7- 2,5 W/m²K
Acoustic insulation Rw (ISO 717-1)	18 dB (th.8-10mm) 19dB (th.12mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®684-6104-6124 are three modular systems consisting of coextruded 4 walls polycarbonate panels with thicknesses of 8-10 and 12mm, inserted in aluminium profiles using a click-on system.
Used for vertical windows, flat roofing (min. slope 5%) and curved roofing (minimum radius 2,0m with profiles code 4248 and 4249; minimum radius 3,0m with reinforced aluminium profile code 4636).

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

APPLICATIONS

- Roofing
- Curved roofing
- Skylights
- Vertical windows

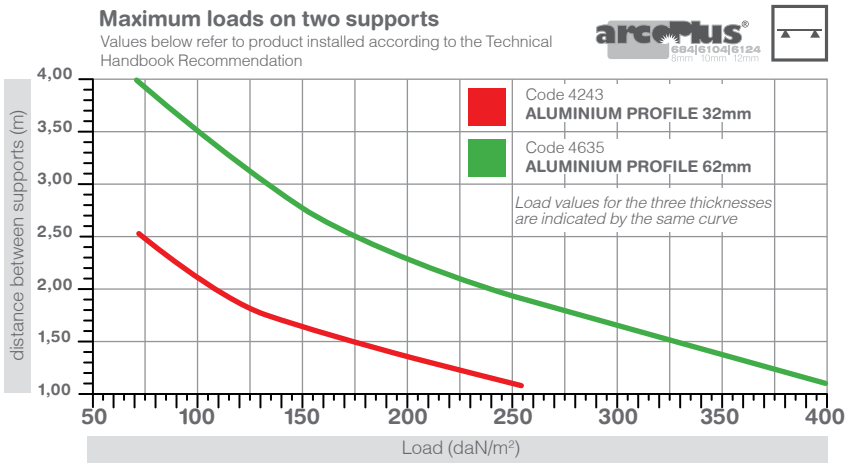
CERTIFICATIONS

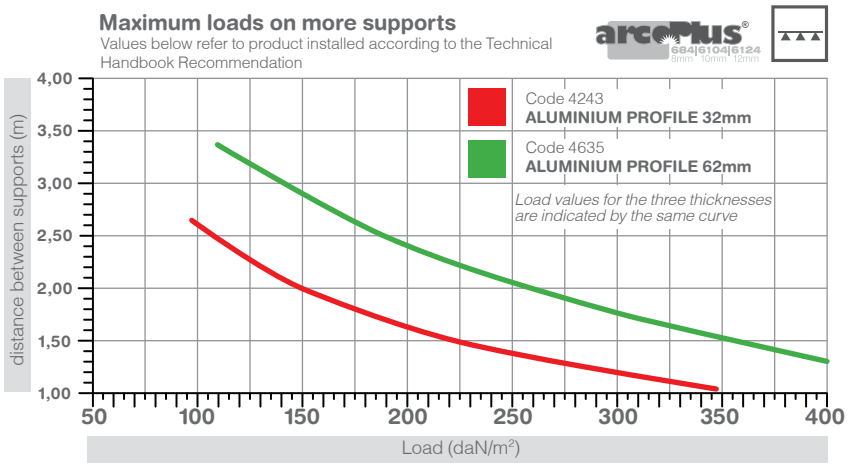
CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

Avis Technique
n°2.2/11-1485 *V1 published 31/07/2017

CONTINUOUS ROOFING
Model of tunel with reinforced aluminium profil

FLAT SYSTEM LOAD RESISTANCE





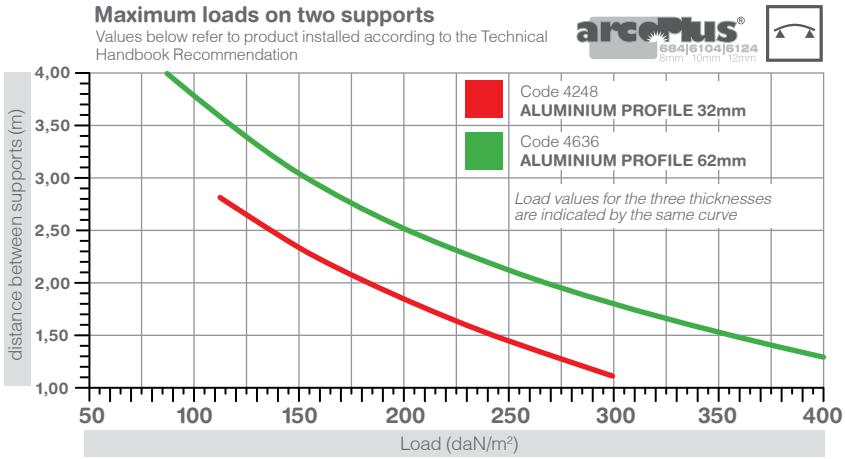
Code 4243 (straight)
ALUMINIUM PROFILE 32mm

Code 4635 (straight)
ALUMINIUM PROFILE 62mm

FLAT SELF-SUPPORTING SYSTEM

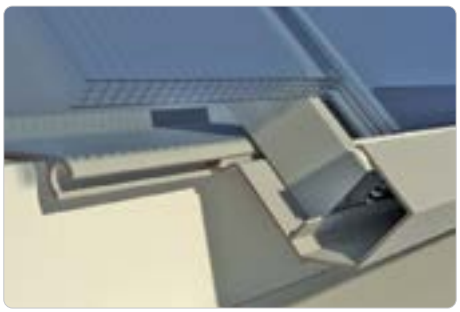
The arcoPlus®684-6104-6124 systems can be used for vertical walls and flat roofing applications.
The panels are inserted on open joint metal tubes using a click-on system.
This ensures the necessary wind and snow load resistance properties (see load resistance tables).

CURVED SYSTEM R.4.000mm LOAD RESISTANCE



Code 4248 (curved)
ALU PROFILE 32mm

Code 4636 (curved)
ALU PROFILE 62mm



SIDE SUPPORTS
Detail of insertion of the roof components on side supporting profiles

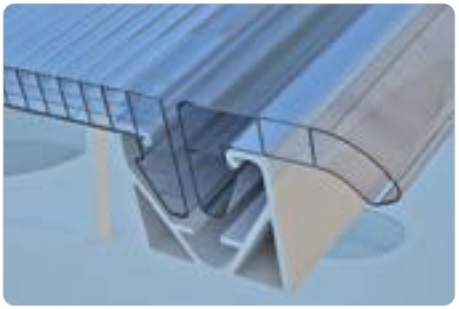
CURVED SELF-SUPPORTING SYSTEM

The metal reinforcement frames guarantee the load capacity of the entire system, while the polycarbonate staves create a continuous curtain walling effect. Special adjustable supports guarantee a complete seal. Different types of reinforcement frames are available to guarantee the required load and wind resistance properties according to the relative load resistance values and conditions of use.

Minimum bend radius R. 2.000mm

EASY AND LOW-COST INSTALLATION

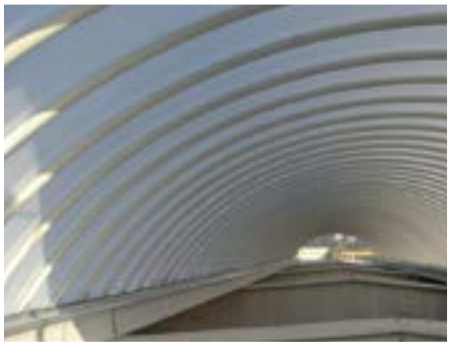
The 4 walls design with click-on connection to open joint tubes gives the panel remarkable flexural strength and is suitable for creating vertical walls and large areas of self-supporting roofing without the use of section-breaker profiles.



START PROFILE
Detail of insertion of start profile on roof

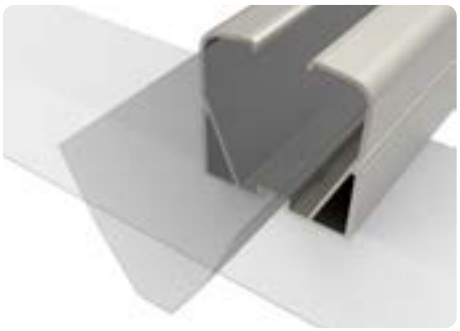
END PROFILE
Detail of insertion of section-breaker profile to complete roofing

info@gallina.it



ACCESSORIES

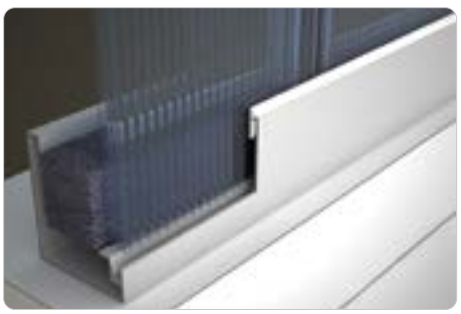
arcoPlus® includes a complete range of accessories that guarantee a perfectly watertight seal and significant wind load resistance.



DETAIL DRIP-STOPPER "V" EAVE
In the joint profiles in roofing applications it is possible to insert suitable "V" profiles with flushing function.

DETAIL OF UPPER PROFILE
Upper profile with gasket and sealing pad

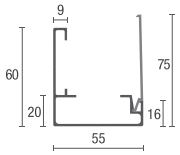
DETAIL FIXING OF ECLYPSE
Detail of the union of the profiles in aluminium with eclypse in aluminium



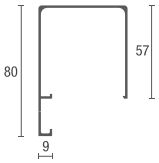
DETAIL OF BASE
Insertion of curtain wall profiles on removable base with front panel

METAL PROFILES

4140
Base/side Alu profile
with flap frontal opening

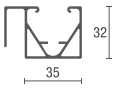


4045
Upper/side
Alu profile

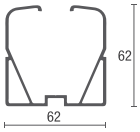


4243 (straight)
4248 (curved)
Alu tubolar profile 32mm

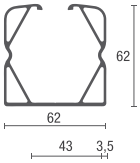
4244 (straight)
4249 (curved)
Alu edge profile



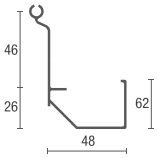
4635 (straight)
Alu tubolar profile 62mm



4636 (curved)
Alu tubolar profile 62mm

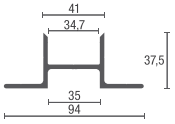


4245
Aluminium
U-frame



4252
Alu closing support
for U-frame (+4245/4271)

4260
Fixing eclypse for
chassis (+4243)

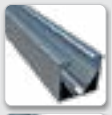


1400
Drip-stopper 'V' eave
for tubolar 4243/4248

1356
Drip-stopper 'V' eave
for tubolar 4635/4636

4327
Taping surcharge

ACCESSORIES



4243 (straight)
4248 (curved)
Alu tubolar profile 32mm

4244 (straight)
4249 (curved)
Alu edge profile

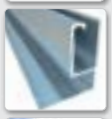
4635 (straight)
4636 (curved)
Alu tubolar profile 62mm

4140
Base/side Alu profile
with flap frontal opening

4045
Upper/side
Alu profile

4245
Aluminium U-frame

4252
Alu closing support
for U-frame (+4245)



4589
Alu end profile

2147 th.8/10mm
2245 th.12mm
PC starter profile

2148 th.8mm
2265 th.10mm
2250 th.12mm
End profile in PC

1169/B
Slip Coat Gasket

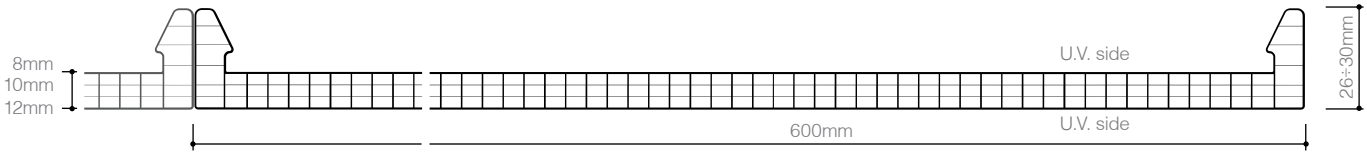
1169/B/AGS
Overlap Slip-coated
seal strip

4213 dim. 40x35x580
4221 dim. 40x70x570
LDPE foam pad

4260
Fixing eclypse for chassis (+4243)

4970/600 th.8mm
4971/600 th.10mm
4972/600 th.12mm
Alu closing edge

2.2 MODULAR CONNECTOR SYSTEMS



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · RF REFLECTO · UV TECH · ANTIGRAFF · UV UV-MATT · AR

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	8-10-12mm
Structure	4 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	3,0 - 2,7- 2,5 W/m²K
Acoustic insulation Rw (ISO 717-1)	18 dB (th.8-10mm) 19dB (th.12mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®684-6104-6124 reversò are three modular systems consisting of 4 walls polycarbonate panels with UV protection on two sides and thicknesses of 8-10-12mm.
They are anchored to the existing structures using specific anchor brackets. The panels are joined together using a protected polycarbonate or aluminium cover plate profile assembled using a click-on system to guarantee a perfectly watertight seal.
Flat roofing with min. slope 5%

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min=2,0m

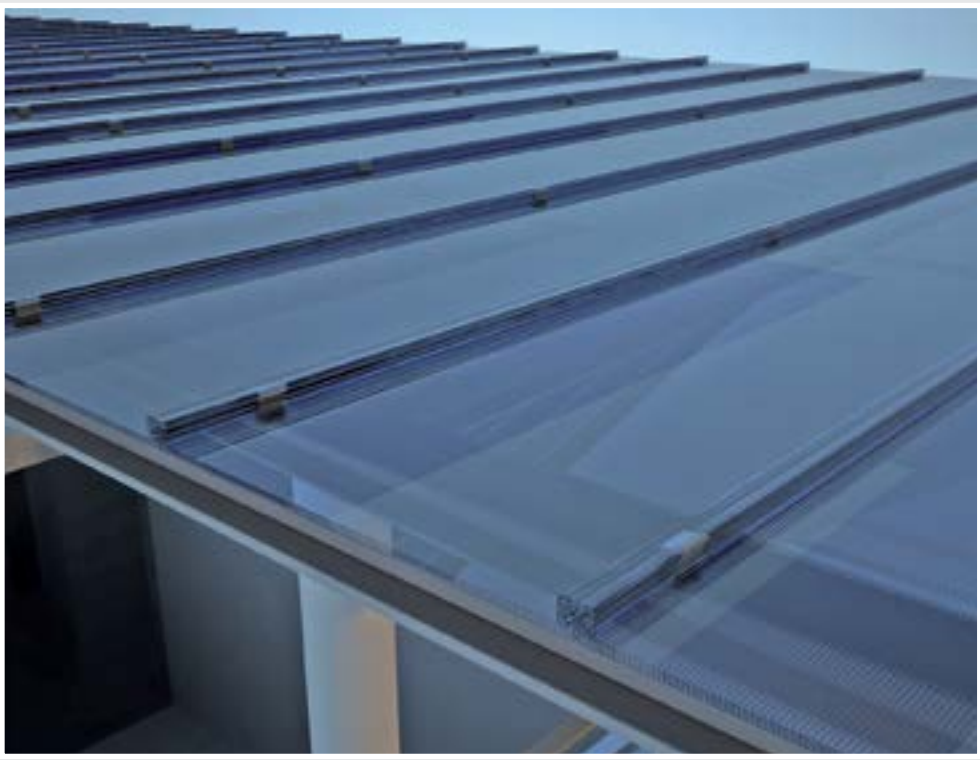
APPLICATIONS

- Roofing
- Curved roofing

CERTIFICATIONS

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

arcoPlus Serie600 Reversò
Document Technique d'Application
n°5.1/19-2581_V1 published 21/11/2019

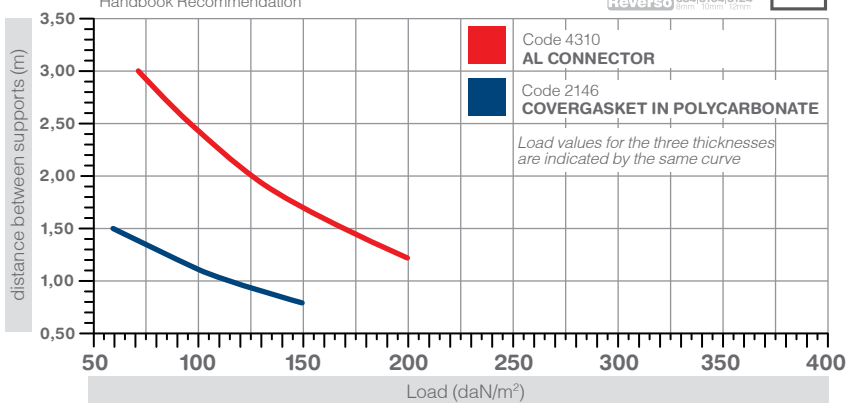


CONTINUOUS ROOFING
Example of roofing with polycarbonate cover plate

LOAD RESISTANCE

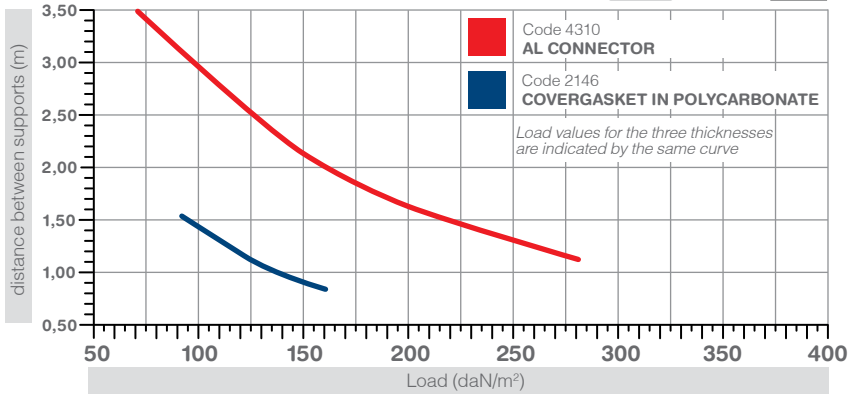
Maximum loads on two supports

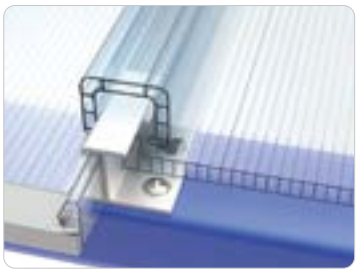
Values below refer to product installed according to the Technical Handbook Recommendation



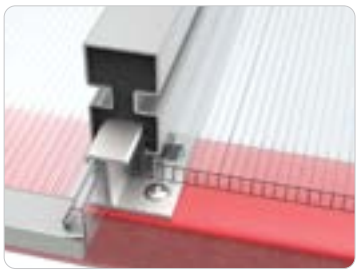
Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



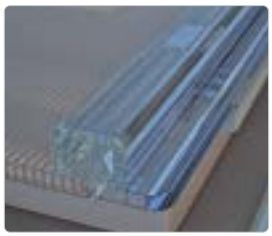


Cod.2146
PC COVERGASKET

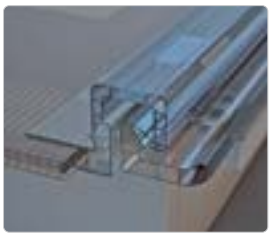


Cod.4310
ALU CONNECTOR

DETAIL OF COMPLETE SYSTEM
Start profile with panel, cover plate, plate and air cell cover profiles



START PROFILE
Detail of insertion of start profile on roof

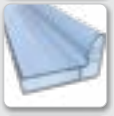


END PROFILE
Detail of insertion of section breaker profile to complete roofing

4303
PC cap for profile

2146
PC covergasket for Reversò panels

2147 - th.8/10mm
2245 - th.12mm
PC starter profile



2148 th.8mm
2265 th.10mm
2250 th12mm
PC terminal profile

4310
Alu connector for Reversò

4319/200
Joining eclipse for Alu connector

4326 th.8mm
4350 th.10mm
4355 th.12mm
Flat fastening Alu bracket

4264
Vertical fastening alu bracket

4138
Flat fastening stainless steel bracket (th.8mm)

4970/600/RV th.8mm
4971/600/RV th.10mm
4972/600/RV th.12mm
Alu obturating strip drip Reverso

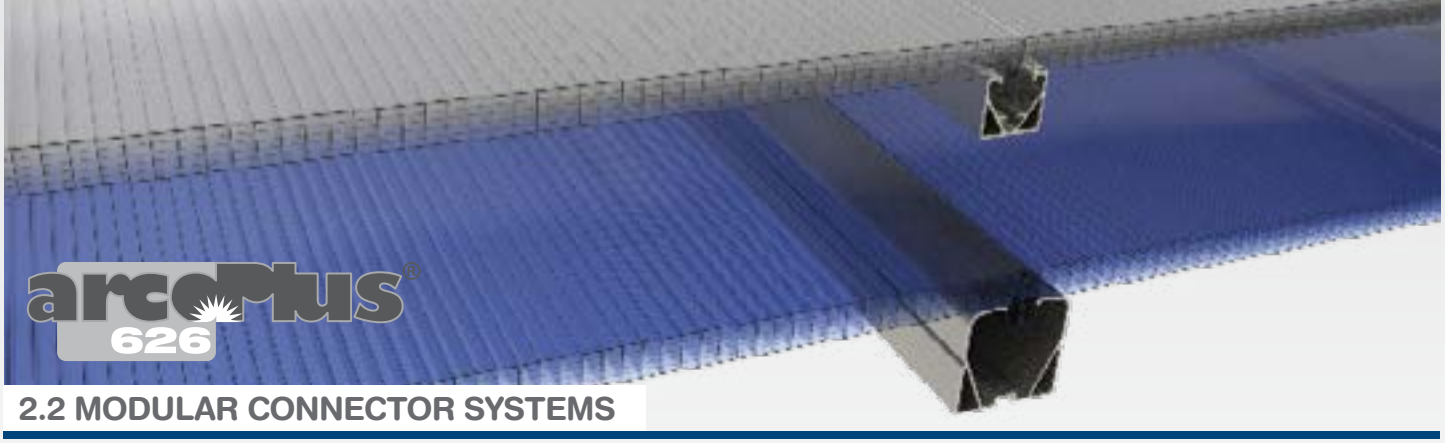
4213 dim. 40x35x580
LDPE foam pad

4318
LDPE foam pad for connector (+4310)

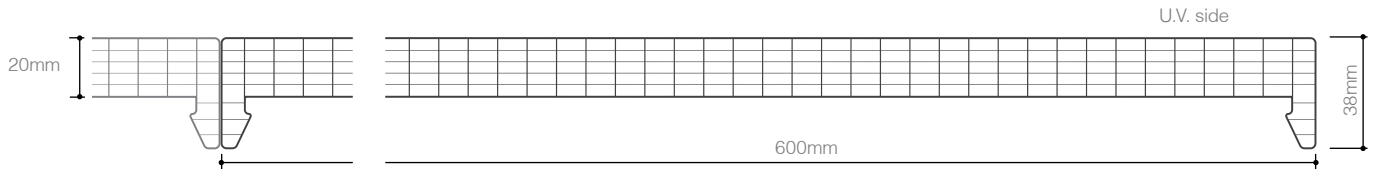
4329
LDPE foam seal strip 4x15mm

4316 M6 spheric acorn nut UNI 5721 A2
4315 Screw M6 x 20 ISO 4762 A2
Accesories for connector

4327
Taping surcharge



2.2 MODULAR CONNECTOR SYSTEMS



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · TAURUS
UV TECH · ANTIGRAFF · UV UV-MATT · AR · RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20mm
Structure	6 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	20 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®626 is a modular system of co-extruded 6 walls polycarbonate panels with 600mm module, assembled using a click-on system to aluminium profiles.

Used for:
- Curtain walls, flat roofing
min. slope 5%
- curved roofing
arcoPlus®626 minimum radius 4,0m

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

APPLICATIONS

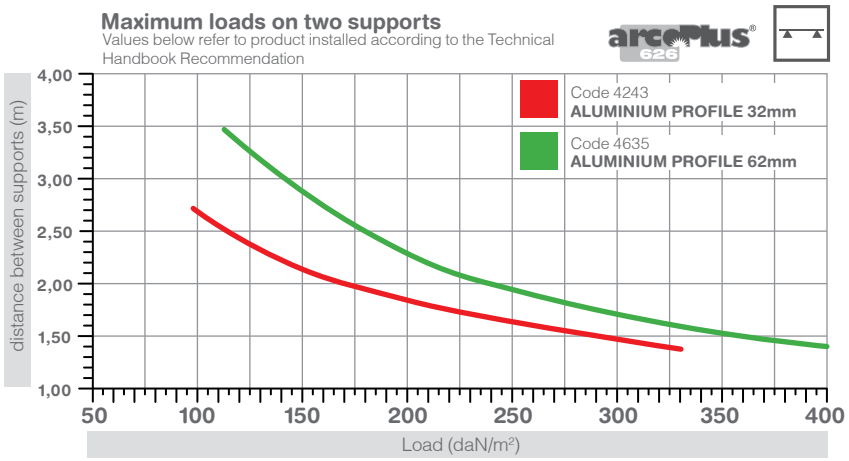
- Vertical windows
- Roofing
- Curved roofing
- Curtain walls

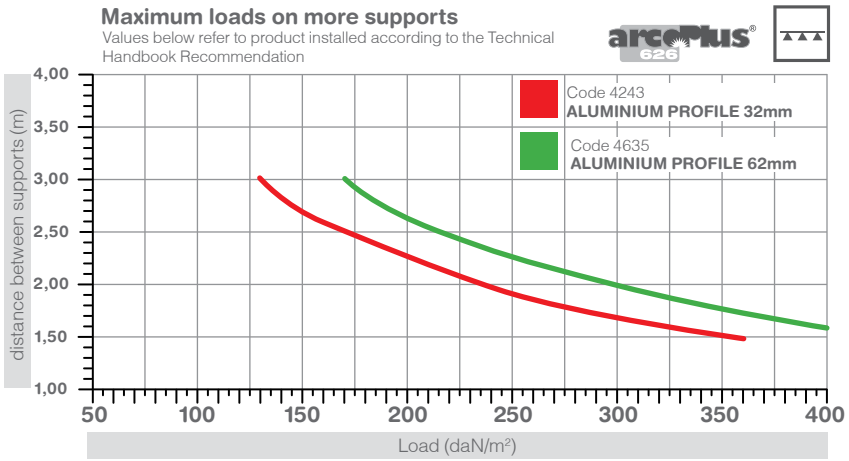
CERTIFICATION

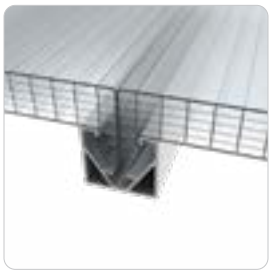
CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

arcoPlus626
Avis Technique
n°2.2/11-1485 *V1 published 31/07/2017

FLAT SYSTEM LOAD RESISTANCE







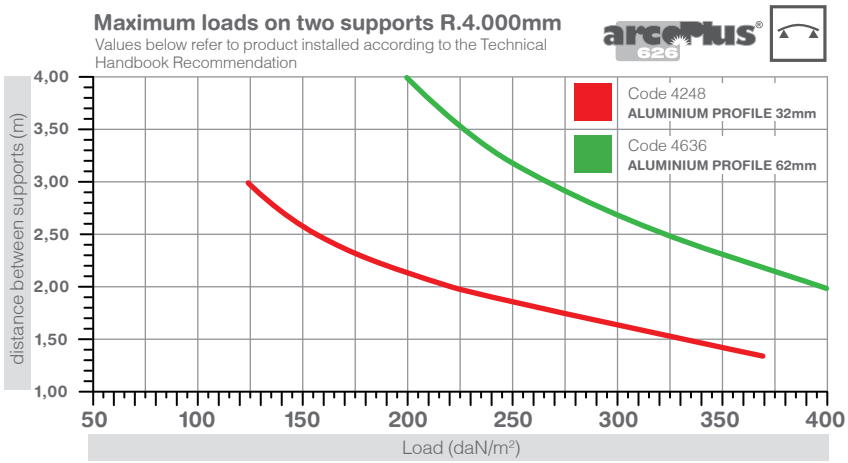
Code 4243 (straight)
ALUMINIUM PROFILE 32mm

Code 4635 (straight)
ALUMINIUM PROFILE 62mm

EASY AND LOW-COST INSTALLATION

The 6 walls design with snap-on connection to open joint tubes gives the panel remarkable flexural strength. It is suitable for vertical curtain walls and large areas of self-supporting roofing without the use of section-breaker profiles. The snap-on connection and complete range of accessories and aluminium perimeter profiles combine to guarantee a perfectly watertight seal and considerable wind load resistance.

CURVED SYSTEM LOAD RESISTANCE

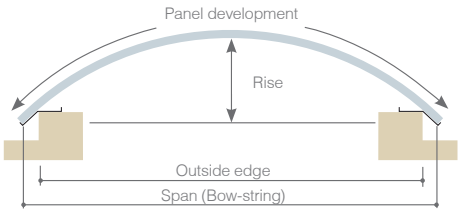


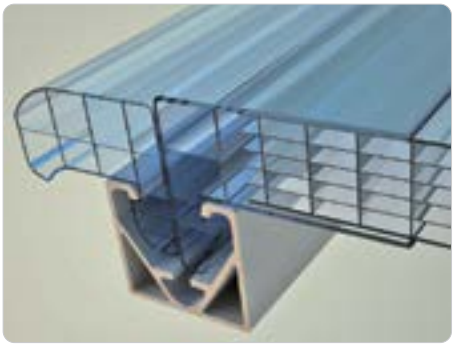
Code 4248 (curved)
ALUMINIUM PROFILE 32mm

Code 4636 (curved)
ALUMINIUM PROFILE 62mm

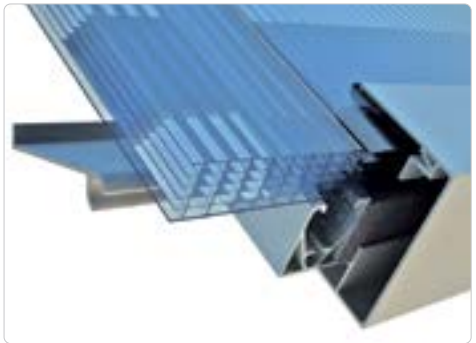
CURVED SELF-SUPPORTING SYSTEM

The metal reinforcement frames guarantee the load capacity of the entire system, while the polycarbonate staves create a continuous curtain walling effect. Special adjustable supports guarantee a complete seal.
Different types of reinforcement frames are available to guarantee the required load and wind resistance properties according to the relative load capacity values and conditions of use.



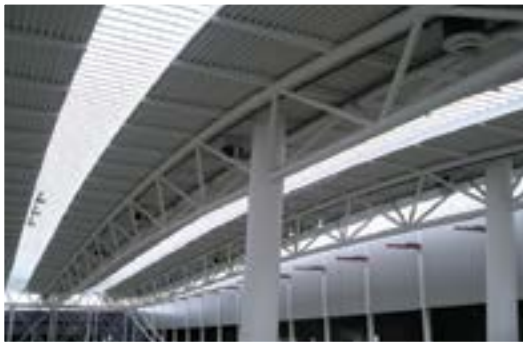


END PROFILE
Detail of insertion of section-breaker profile to complete roofing



DETAIL OF SUPPORT
Insertion of panels by pressing onto supporting profiles and special side supports

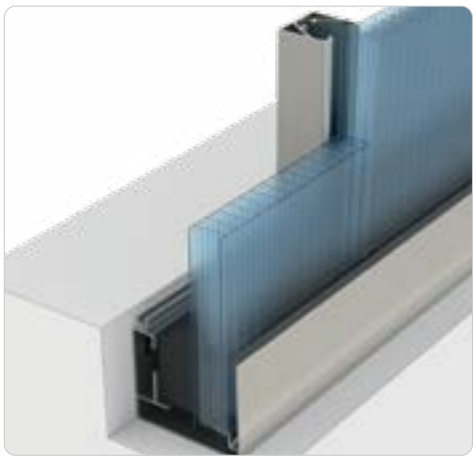
info@gallina.it



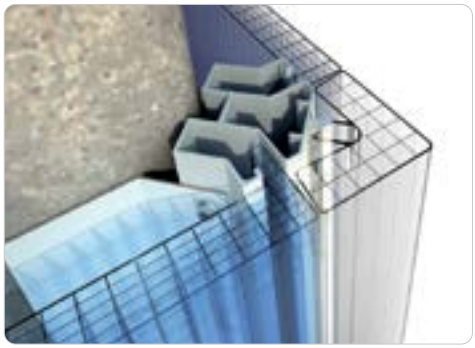
ACCESSORIES

The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

DETAIL DRIP-STOPPER "V" EAVE
In the joint profiles in roofing applications it is possible to insert suitable "V" profiles with flushing function.



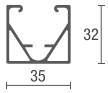
WALL SYSTEM
Construction of continuous transparent walls, with insertion on aluminium profile using a snap-on system



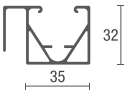
DETAIL CORNER
Click insertion of corner profiles in polycarbonate with aluminium profile

METAL PROFILES

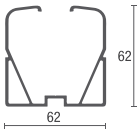
4243 (straight)
4248 (curved)
Alu tubolar profile 32mm



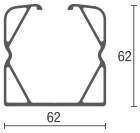
4244 (straight)
4249 (curved)
Alu edge profile



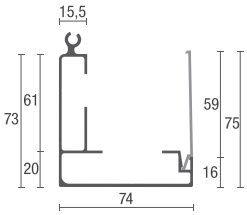
4635 (straight)
Alu tubolar profile 62mm



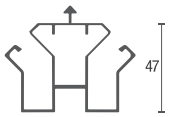
4636 (curved)
Alu tubolar profile 62mm



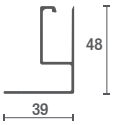
4271
Alu base/side profile (+4252)



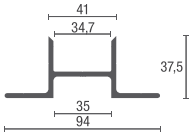
4588
Alu corner-profile (+2550)



4589
Alu end profile



4260
Fixing eclypse for chassis (+4243)



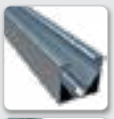
1400
Drip-stopper "V" eave for tubolar 4243/4248

1356
Drip-stopper "V" eave for tubolar 4635/4636

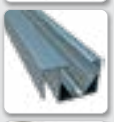
1169/B
Slip Coat Gasket

1169/B/AGS
Overlap Slip-coated seal strip

ACCESSORIES



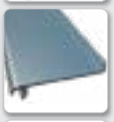
4243 (straight)
4248 (curved)
Alu tubolar profile 32mm



4244 (straight)
4249 (curved)
Alu edge profile

4635 (straight)
4636 (curved)
Alu tubolar profile 62mm

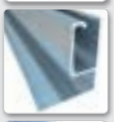
4271
Alu base/side profile (+4252)



4252
Alu closing support for U-frame (+4245/4271)

4260
Fixing eclypse for chassis (+4243)

4588
Alu corner-profile (+2550)



4589
Alu end profile

2179
PC starter profile

2180
PC terminal profile

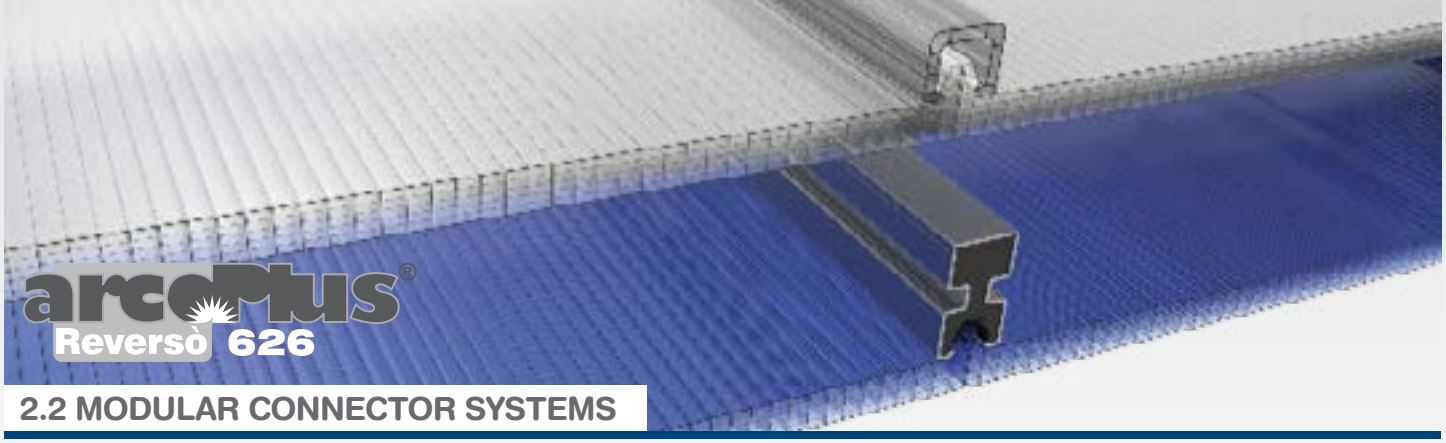
2550
Corner 90° cover-profile in PC (+4588/4738/4740)

4213 dim. 40x35x580
4221 im 40x70x570
LDPE foam pad

4974/600 th.20mm
Alu closing edge 20mm

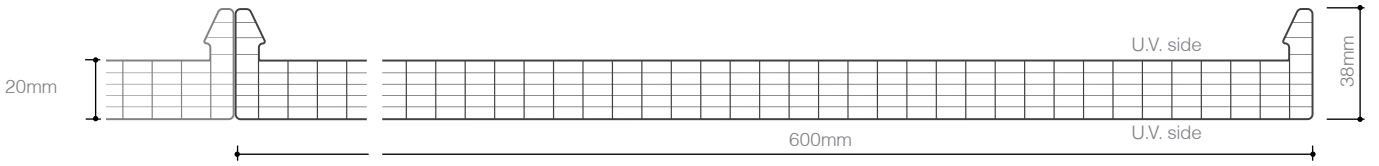
2182
PC block cover for 20mm panel

4327
Taping surcharge



arcoPlus® Reversò 626

2.2 MODULAR CONNECTOR SYSTEMS



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · TAURUS · UV TECH · ANTIGRAFF · UV UV-MATT · AR · RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20mm
Structure	6 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	20 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®626 is a modular system of co-extruded 6 walls polycarbonate panels with 600mm module. These are fixed to the existing structure using specific anchor brackets. The panels are joined together by a protected polycarbonate cover plate assembled using a click-on system, or by an aluminium connector, for a perfectly watertight seal.
Flat roofing with min. slope 5%

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min = 4,0m

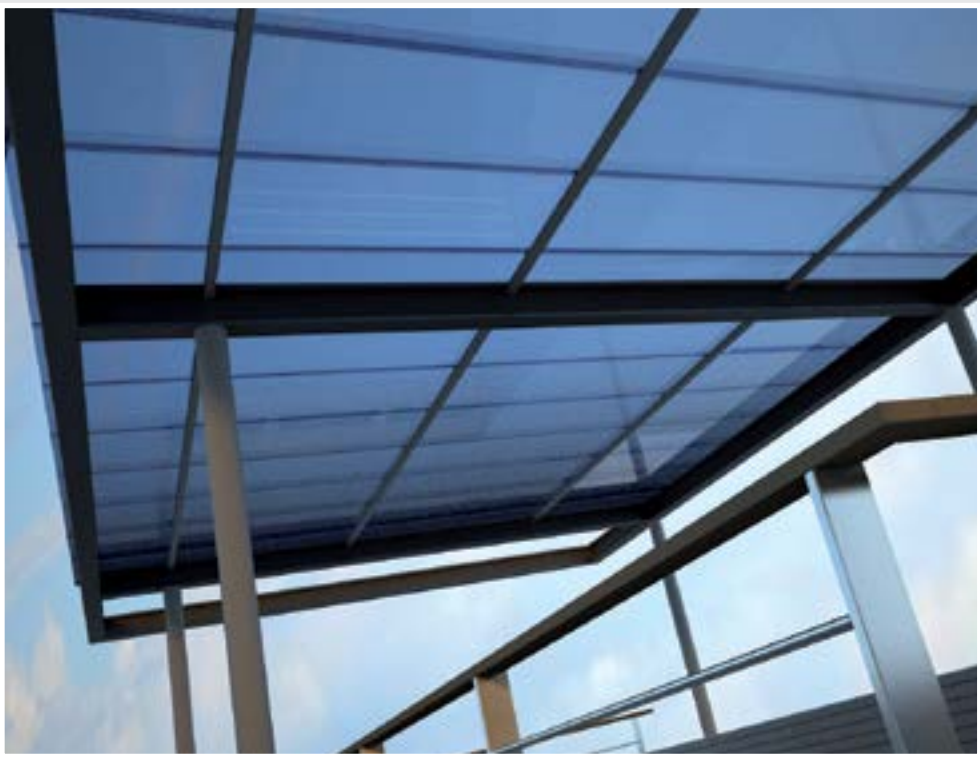
APPLICATIONS

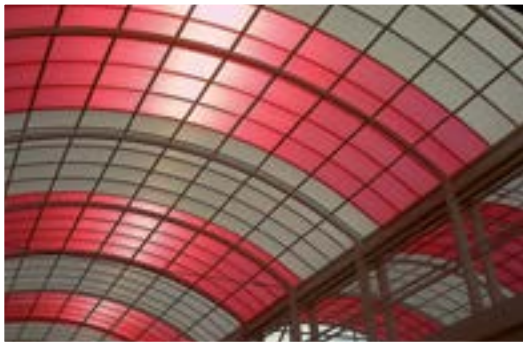
- Roofing
- Curved roofing
- Skylights

CERTIFICATIONS

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

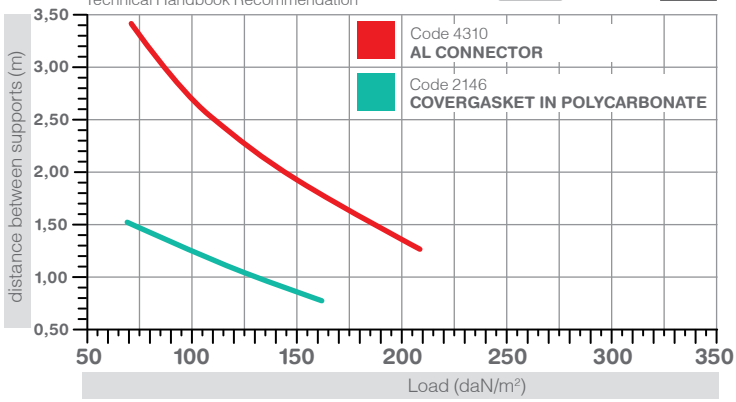
arcoPlus626 Reversò
Document Technique d'Application
n°5/14-2374 published 28/05/2015



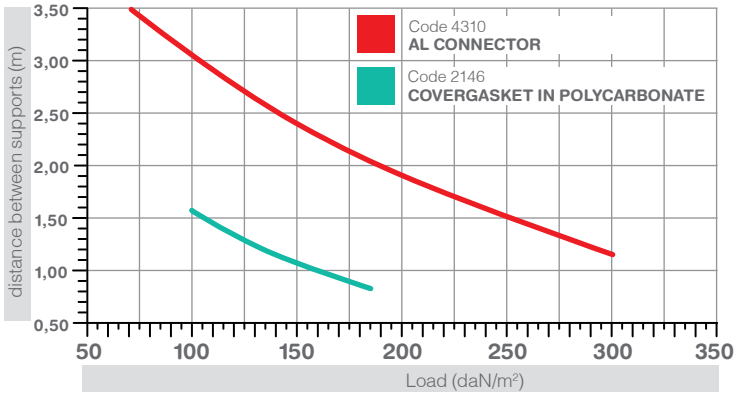


LOAD RESISTANCE

Maximum loads on two supports
Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports
Values below refer to product installed according to the Technical Handbook Recommendation



Cod.2146
PC COVERGASKET

Cod.4310
ALU CONNECTOR

EASY AND LOW-COST INSTALLATION

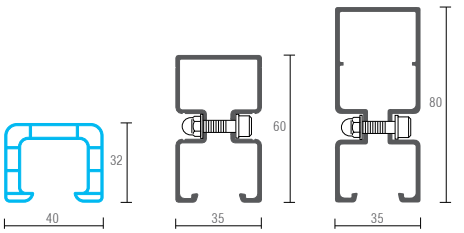
To ensure compliance with snow load and negative wind load resistance requirements, anchor brackets should be fitted for each purlin. The polycarbonate panels are fastened to the underlying structure using specific brackets, which must be anchored to the purlins using suitable self-drilling/self-tapping screws (on metal structures) and tap bolts (for wooden structures). These screws and bolts are not supplied. Different connector profiles can be used, depending on the required load specifications.

ACCESORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation. The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

CONNECTOR SYSTEMS

The system provides for the possibility of choosing a different type of joint connector, according to the required resistance needs.



Cod.2146
POLYCARBONATE COVERGASKET

Cod.4310
ALUMINIUM CONNECTOR

Cod.4499 - Twister
ALU RENFORCED CONNECTOR

4303
PC cap for profile

2146
PC covergasket for Reversò panels

2179 th.20 mm
PC starter profile

2180 th.20 mm
PC terminal profile

4310
Alu connector
4499 - twister
Alu renforced connector

4319/200
Joining eclipse for Alu connector

4328 th.20 mm
Flat fastening Alu bracket

4264
Vertical fastening alu bracket

4263
Flat fastening stainless steel bracket

4213 dim. 40x35x580
LDPE foam pad

4318 (connector 4310)
4462 (connector 4499-twister)
LDPE foam pad for connector

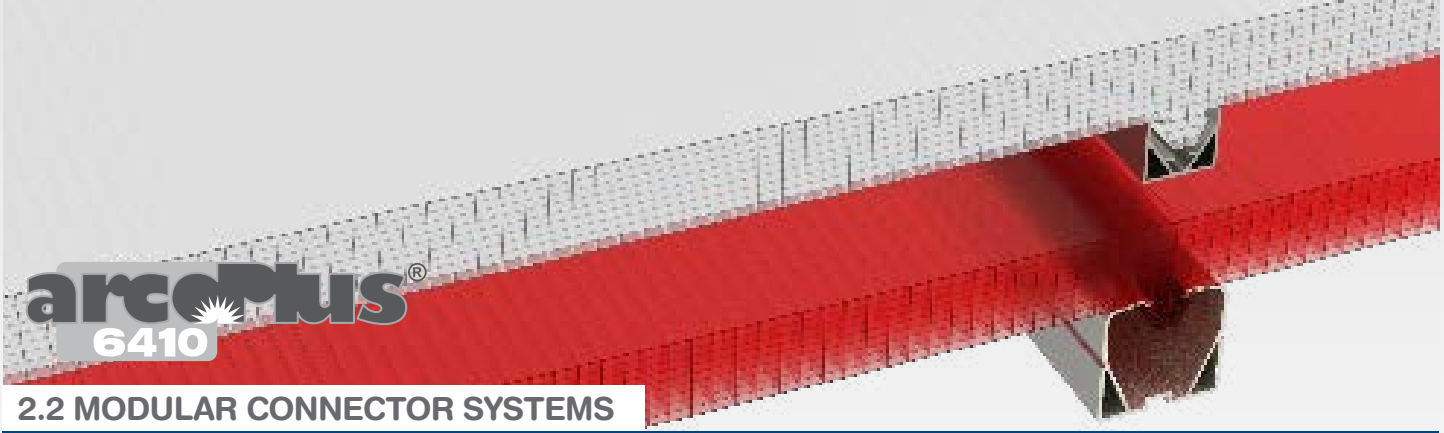
4329
LDPE foam seal strip 4x15mm

4316 M6 spheric acorn nut UNI 5721 A2
4315 Screw M6 x 20 ISO 4762 A2
Accesories for connector

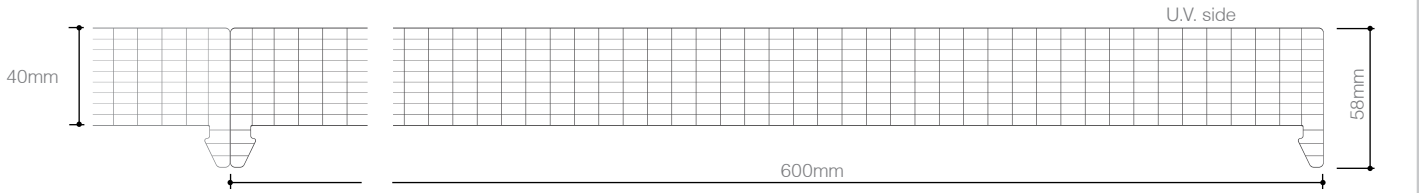
2182
PC block cover

4974/600/RV th.20mm
Alu obturating strip drip-free Reverso

4327
Taping surcharge



2.2 MODULAR CONNECTOR SYSTEMS



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · RF REFLECTO · UV TECH · ANTIGRAFF · UV UV-MATT · AR

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	40mm
Structure	10 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	0,94 W/m²K
Acoustic insulation Rw (ISO 717-1)	21 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®6410 is a modular system of co-extruded 10 walls polycarbonate panels with 600mm module, assembled using a click-on system to aluminium profiles.

Used for:

- **Curtain walls, flat roofing**
  min. slope 5%
- **curved roofing**
  minimum radius 8,0m

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

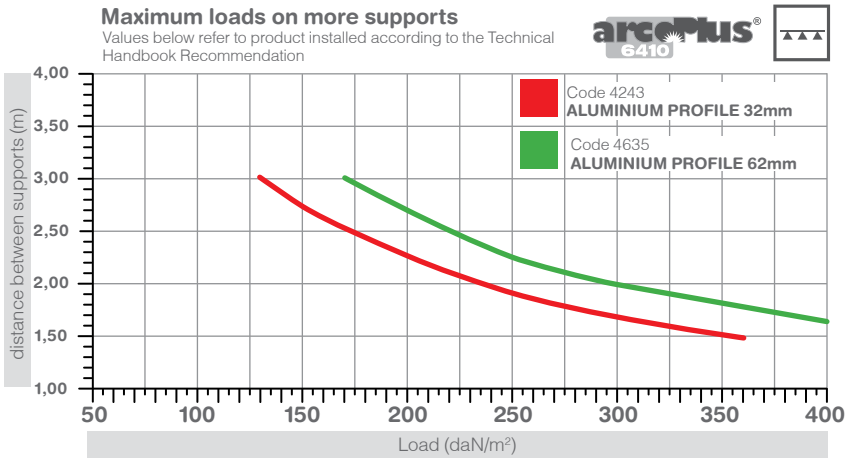
APPLICATIONS

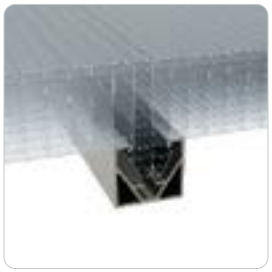
- Vertical windows
- Roofing
- Curved roofing
- Curtain walls

CERTIFICATION

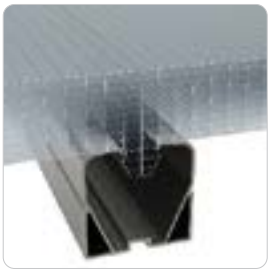
arcoPlus626
Avis Technique
n°2.2/11-1485 *V1 published 31/07/2017

FLAT SYSTEM LOAD RESISTANCE





Code 4243 (straight)
ALUMINIUM PROFILE 32mm



Code 4635 (straight)
ALUMINIUM PROFILE 62mm

EASY AND LOW-COST INSTALLATION

The 10 walls design with snap-on connection to open joint tubes gives the panel remarkable flexural strength. It is suitable for vertical curtain walls and large areas of self-supporting roofing without the use of section-breaker profiles.
The snap-on connection and complete range of accessories and aluminium perimeter profiles combine to guarantee a perfectly watertight seal and considerable wind load resistance.

4447
LDPE foam pad

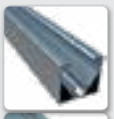
1400 for 32mm
1536 for 62mm
Drip-stopper "V" eave
for tubolar 4635/4636

1169/B
Slip Coat Gasket

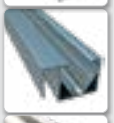
4828
Flat aligner for base
TB profiles

4749
Taping surcharge

ACCESSORIES



4243 (straight)
4248 (curved)
Alu tubolar profile 32mm



4244 (straight)
4249 (curved)
Alu edge profile

4635 (straight)
4636 (curved)
Alu tubolar profile 62mm

4596
ALU base/upper/side profile
with thermal break

4809
Base/side
straight flap for 4596

4831
Base straight flap
with drip sill for 4596

4819
Upper straight flap
with drip sill for 4596

4804
Base/side
curved flap for 4596

4807
Base curved flap
with drip sill for 4596

4801
Upper curved flap
with drip sill for 4596

4740
Alu corner-profile (+2549)

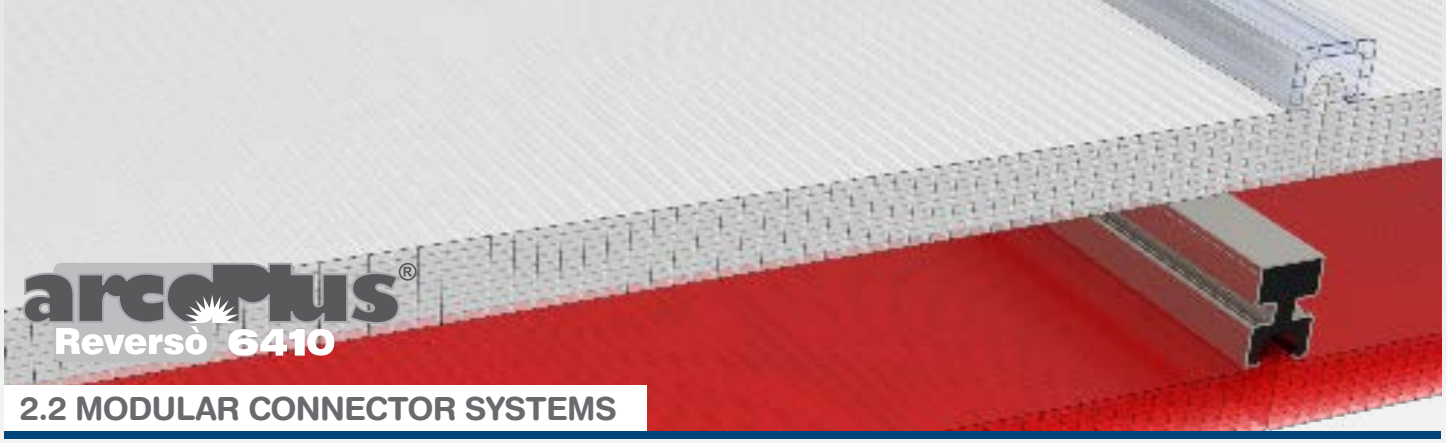
2840
PC starter profile

2842
PC terminal profile

2549
Corner 90° cover-profile
in PC (+4588/4738/4740)

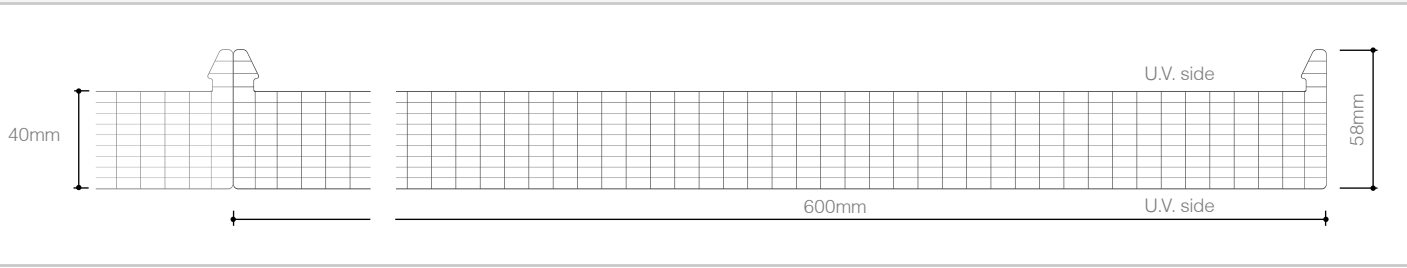
4870
Fixing eclypse for
chassis (+4243)

4977/600/TR
Alu closing edge 40mm



arcoPlus® Reversò 6410

2.2 MODULAR CONNECTOR SYSTEMS



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · RF REFLECTO · UV TECH · AG ANTIGRAFF · UV UV-MATT · AR

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	40mm
Structure	10 walls
Effective modular width	600mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	0,94 W/m²K
Acoustic insulation Rw (ISO 717-1)	21 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®6410 Reversò is a modular system of co-extruded 10 walls polycarbonate panels with 600mm module. These are fixed to the existing structure using specific anchor brackets. The panels are joined together by a protected polycarbonate cover plate assembled using a click-on system, or by an aluminium connector, for a perfectly watertight seal.

Flat roofing with min. slope 5%

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min = 4,0m

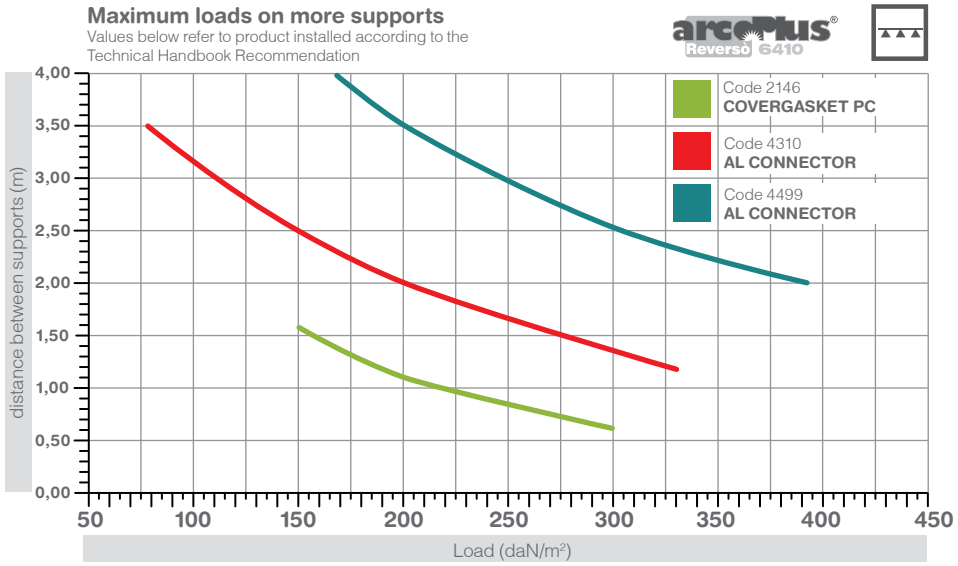
APPLICATIONS

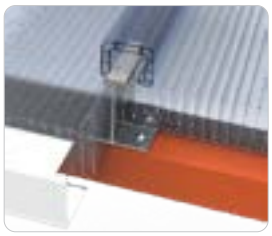
- Roofing
- Curved roofing
- Skylights

CERTIFICATIONS

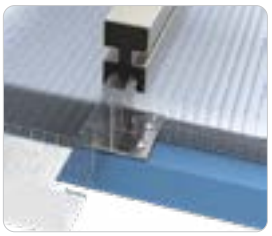
arcoPlus626 Reversò
Document Technique d'Application
n°5/14-2374 published 28/05/2015

LOAD RESISTANCE

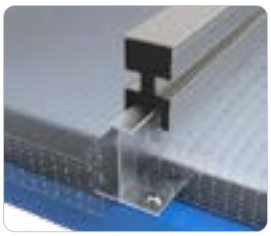




Cod.2146
PC COVERGASKET



Cod.4310
ALU CONNECTOR



Cod.4499
ALU CONNECTOR

EASY AND LOW-COST INSTALLATION

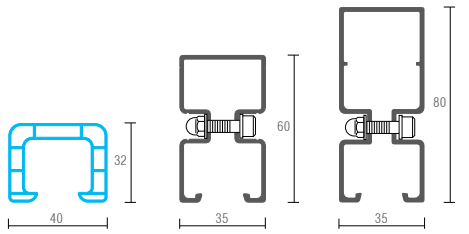
To ensure compliance with snow load and negative wind load resistance requirements, anchor brackets should be fitted for each purlin. The polycarbonate panels are fastened to the underlying structure using specific brackets, which must be anchored to the purlins using suitable self-drilling/self-tapping screws (on metal structures) and tap bolts (for wooden structures). These screws and bolts are not supplied. Different connector profiles can be used, depending on the required load specifications.

ACCESORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation. The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape. This allows correct ventilation and prevents soiling on the inside.

CONNECTOR SYSTEMS

The system provides for the possibility of choosing a different type of joint connector, according to the required resistance needs.



Cod.2146
POLYCARBONATE COVERGASKET

Cod.4310
ALUMINIUM CONNECTOR

Cod.4499 - Twister
ALU RENFORCED CONNECTOR

ACCESORIES

4303
PC cap for profile

2146
PC covergasket for Reversò panels

2840
PC starter profile

2842
PC terminal profile

4310
Alu connector
4499 - twister
Alu renforced connector

4319/200
Joining eclipse for Alu connector

4726
Flat fastening Alu bracket

4447
LDPE foam pad

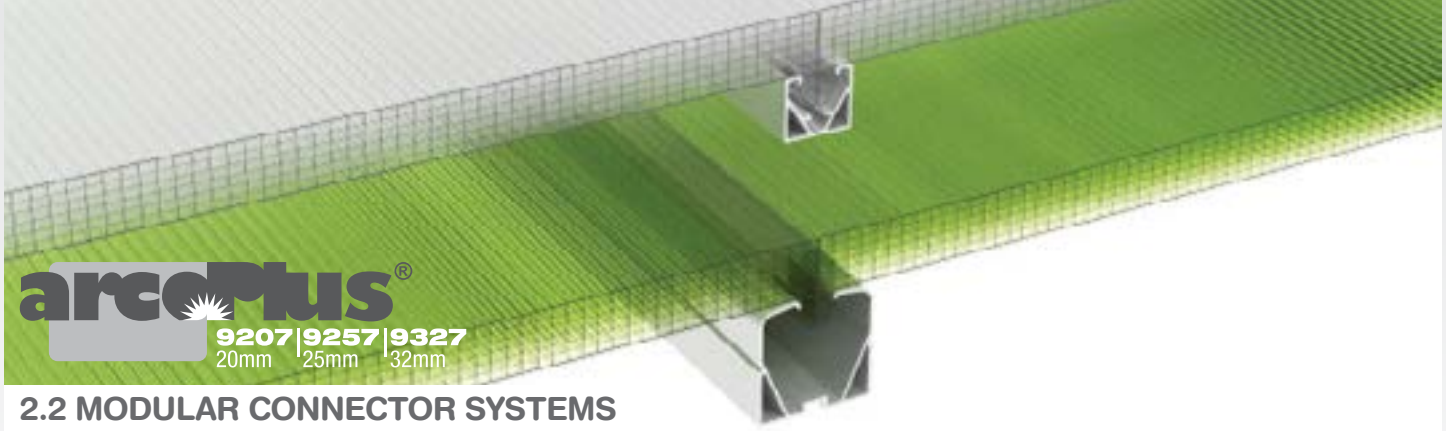
4318 (connector 4310)
4462 (connector 4499-twister)
LDPE foam pad for connector

4329
LDPE foam seal strip 4x15mm

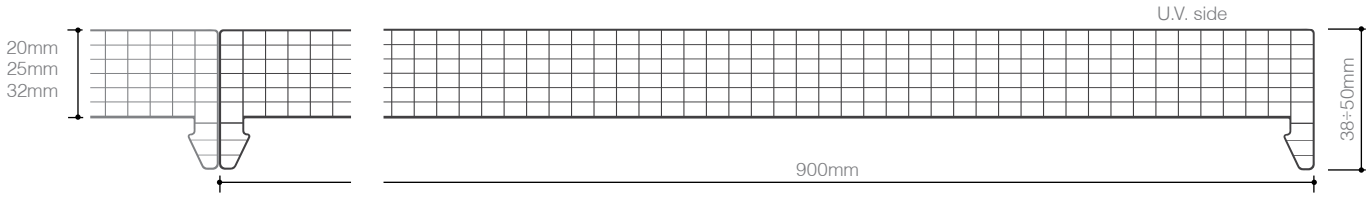
4316 M6 spheric acorn nut UNI 5721 A2
4315 Screw M6 x 20 ISO 4762 A2
Accesories for connector

4977/600/TR/RV
Alu obturating strip drip-free Reverso

4327
Taping surcharge



2.2 MODULAR CONNECTOR SYSTEMS



Modular system of UV protected multiwall polycarbonate for translucent curtain walls and roofing

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · TAURUS
UV TECH · ANTIGRAFF · UV UV-MATT · AR · RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20-25-32mm
Structure	7 walls
Effective modular width	900mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7-1,4-1,3 W/m²K
Acoustic insulation Rw (ISO 717-1)	20 dB (20-25mm)
	21 dB (32mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®9207-9257-9327 are three modular systems consisting of co-extruded 7 walls polycarbonate panels with thicknesses of 20-25 or 32mm with 900mm module, assembled using a click-on system to aluminium profiles.
Used for vertical glazing, flat roofing (min. slope 5%) and curved roofing (minimum radius 4,0m with 20mm thickness).

- **arcoPlus9207** *th.20mm* R_{min} *= 4.000mm*
- **arcoPlus9257** *th.25mm* R_{min} *= 5.000mm*
- **arcoPlus9327** *th.32mm* R_{min} *= 6.500mm*

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Self-supporting

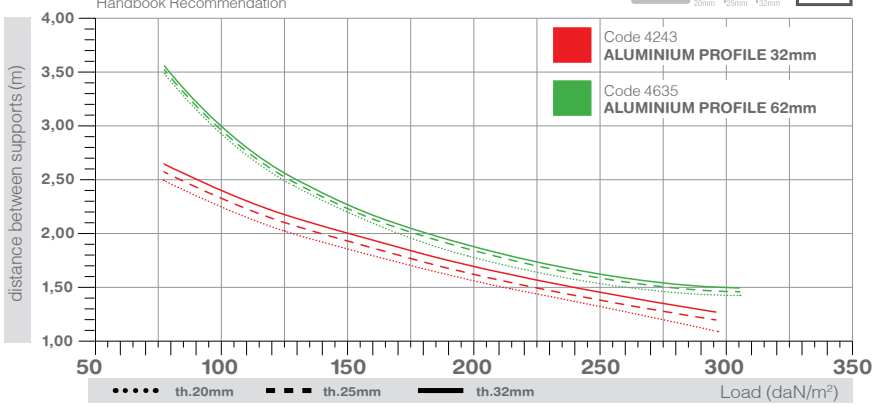
APPLICATIONS

- Cladding
- Vertical glazing
- Self supporting roofing
- Curved roofing

FLAT SYSTEM LOAD RESISTANCE

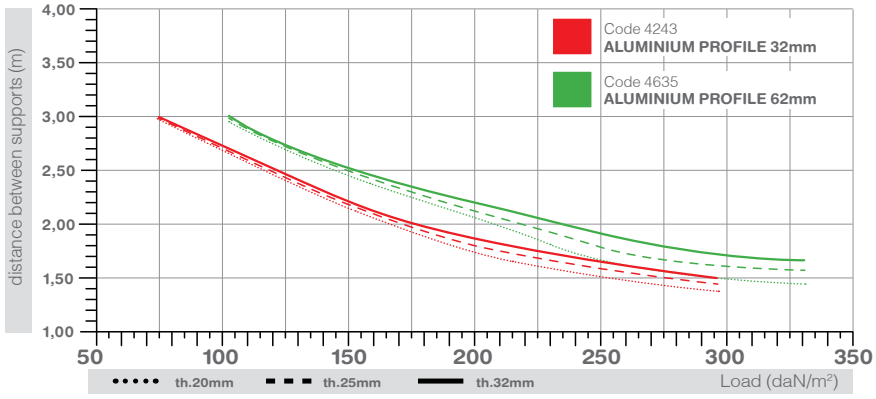
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



Maximum loads on more supports

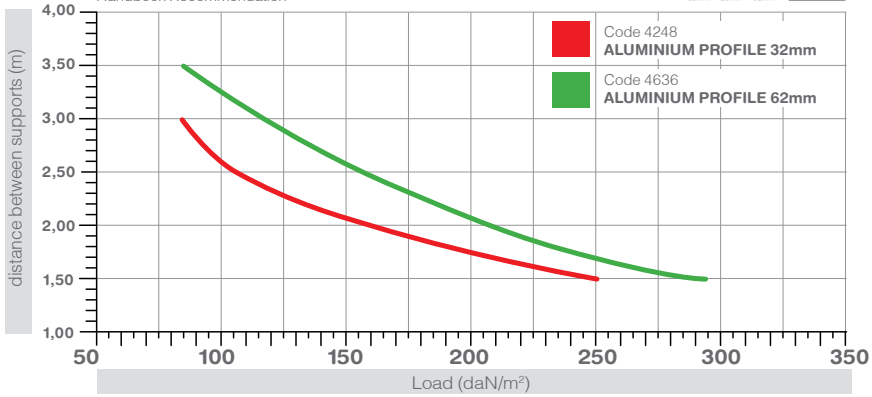
Values below refer to product installed according to the Technical Handbook Recommendation



CURVED SYSTEM LOAD RESISTANCE

Maximum loads on two supports R.4.000mm*

Values below refer to product installed according to the Technical Handbook Recommendation



*only for th.20mm. For higher thickness refer to the straight system

Code 4243 (straight)
ALU PROFILE 32mm

Code 4635 (straight)
ALU PROFILE 62mm

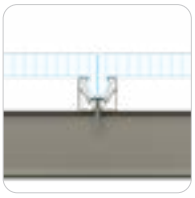
Code 4248 (curved)
ALU PROFILE 32mm

Code 4636 (curved)
ALU PROFILE 62mm

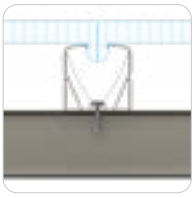
SELF-SUPPORTING SYSTEM

The metal reinforcement frames guarantee the load capacity of the entire system, while the polycarbonate staves create a continuous curtain walling effect. Special adjustable supports guarantee a complete seal.

Different types of reinforcement frames are available to guarantee the required load and wind resistance properties according to the relative load capacity values and conditions of use.



1400
Drip-stopper eave
for cod. 4243



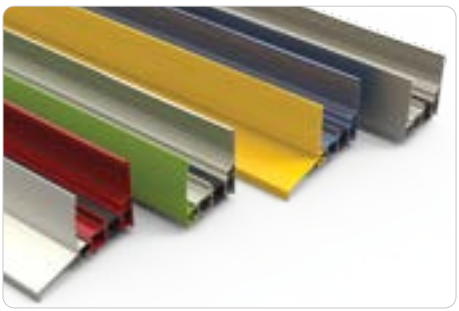
1356
Drip-stopper eave
for cod. 4635-4636

DETAIL DRIP-STOPPER "V" EAVE
In the joint profiles in roofing applications it is possible to insert suitable "V" profiles with flushing function.

ACCESSORIES

The arcoPlus® system includes a complete range of accessories to facilitate installation. The air cells of the panels must be sealed using a specific polycarbonate profile or vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.
Thanks to the modularity of frame profiles 4800/4802/4805, it is possible to choose both the shape and the color of the front flap. While maintaining the same functionality, all 3 versions can be provided with curved or straight silhouette, depending on the design needs.
In addition to standard anodized surface-finish, the profiles can be painted with any shade. Moreover an additional feature allows to diversify the color between the indoor and outdoor side by giving two different nuances for base profile (visible in indoor environments) and for flap (exposed to the outside).

DIFFERENT TYPES OF FLAPS
Curved and straight flaps



DIFFERENT COLORS OF PROFILES
Diversify the color between the inner and outer side

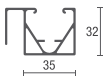
Base 4271
and foam pad 4465

Base 4800 with straight flap 4809
and foam pad 4465

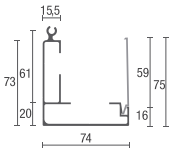
Base 4800 with straight flap 4809
and Alu closing edge 4899

METAL PROFILES

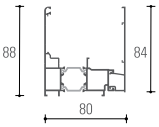
4243 (straight)
4248 (curved)
Alu tubolar profile 32mm



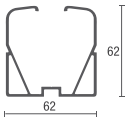
4244 (straight)
4249 (curved)
Alu edge profile



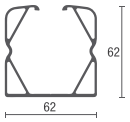
4271
Alu base/side profile
for 20mm panel



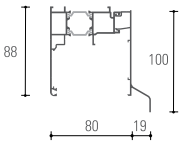
4800 (+4809)
ALU base/upper/side profile
with TB with straight flap



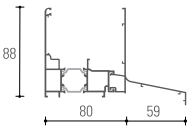
4635 (straight)
Alu tubolar profile 62mm



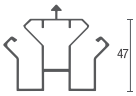
4636 (curved)
Alu tubolar profile 62mm



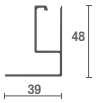
4800 (+4819)
ALU base/upper/side
profile with TB with upper
straight flap with drip sill



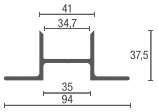
4800 (+4831)
ALU base/upper/side profile
with TB with base straight
flap with drip sill



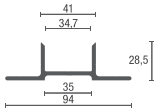
4588
Corner profile AL



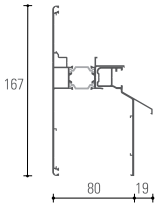
4589
End profile in AL



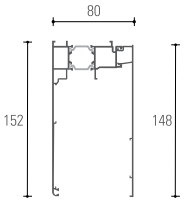
4260
Fixing higher eclypse
(9207/9257)



4870
Fixing lower eclypse
(9327)



4805 (+4808)
Horizontal TB joining profile for
OVERSIZE HEIGHTS with
base straight flap with drip sill



4802 (+4803)
Upper snap profile TB
for OVERSIZE HEIGHTS
with straight flap

4478 for cod. 4243/4248+4260
4476 for cod. 4635/4636
4465 for cod.4800/4271
LDPE foam pad

4899
Alu rear pad
(arcoPlus9327)

1169/B
Slip-coated rubber seal strip

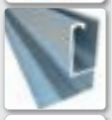
1169/B/AGS
Overlap Slip-coated
seal strip

1372
Internal PE base
dripping eave

4828
Flat aligner for base
TB profiles

1400
Drip-stopper "V" eave
for tubolar 32mm

4588 th.20 mm
4738 th.25 mm
4740 th.32 mm
Alu corner-profile (+2550)



4589
Alu end profile

4260 (+4243)
Fixing higher eclypse (9207/9257)
4870 (+4243)
Fixing lower eclypse (9327)

2179 th.20 mm
2714 th.25 mm
2710 th.32 mm
PC starter profile

2180 th.20 mm
2716 th.25 mm
2712 th.32 mm
End profile in polycarbonate

2550 (+4588/4738/4740)
Corner profile
in polycarbonate

1356
Drip-stopper "V" eave
for tubolar 62mm

ACCESSORIES

4243 (straight)
4248 (curved)
Alu tubolar profile 32mm

4244 (straight)
4249 (curved)
Alu edge profile

4635 (straight)
4636 (curved)
Alu tubolar profile 62mm

4271
Alu base/side profile
for 20mm panel

4252 (+4271)
Alu closing support
for U-frame (+4271)

4800
ALU base/upper/side profile
with thermal break for
cod.4809/4831/4819

4801
Upper curved flap
with drip sill

4804
Base/side
curved flap

4807
Base curved flap
with drip sill

4819 (+4800)
Upper straight flap
with drip sill

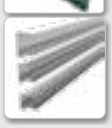
4831 (+4800)
Base straight flap
with drip sill

4809 (+4800)
Base/side
straight flap

4802+4803
Upper snap profile TB
for OVERSIZE HEIGHTS

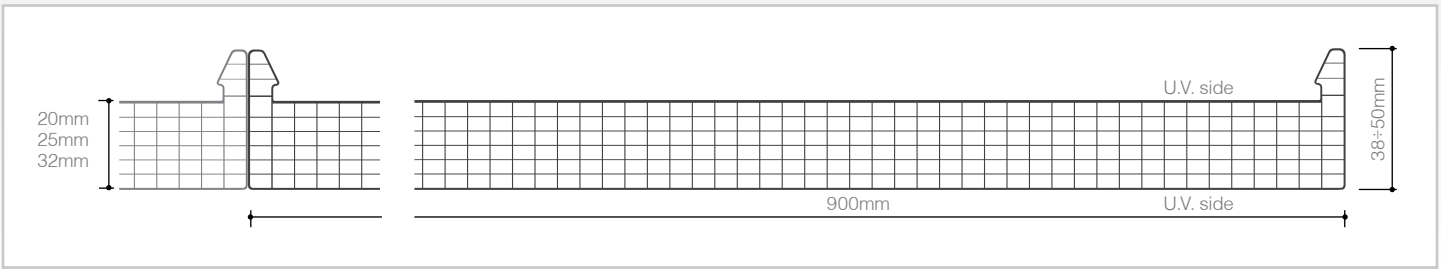
4805+4808
Horizontal TB joining profile
for OVERSIZE HEIGHTS

4950
Taping surcharge



4974/900 th.20mm
4975/900 th.25mm
4976/900 th.32mm
Alu Obturating strip drip-free

2.2 MODULAR CONNECTOR SYSTEMS



Modular system of bi-protected multiwall polycarbonate for translucent roofing applications

CALEIDO IR ABSOLUTE AB BICOLOR BC TAURUS
UV TECH ANTIGRAFF UV UV-MATT AR RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	20-25-32mm
Structure	7 walls
Effective modular width	900mm
Panel length	no limit
Standard colors	see page 11
Special colors	on demand

TECHNICAL FEATURES

Thermal transmittance U	1,7-1,4-1,3 W/m²K
Acoustic insulation Rw (ISO 717-1)	20 dB (20-25mm)
	21 dB (32mm)
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	2 sides Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

arcoPlus®9207-9257-9327 reversò are three modular systems consisting of co-extruded 7 walls polycarbonate panels with thicknesses of 20-25 or 32mm with 900mm module. These are fixed to the existing structure using specific anchor brackets.

Flat roofs with min. slope 5%

Curved roofs it is necessary to respect the minimum specific curvature rays for each thickness.

- **arcoPlus9207** *sp.20mm* R_{min} *= 4.000mm*
- **arcoPlus9257** *sp.25mm* R_{min} *= 5.000mm*
- **arcoPlus9327** *sp.32mm* R_{min} *= 6.500mm*

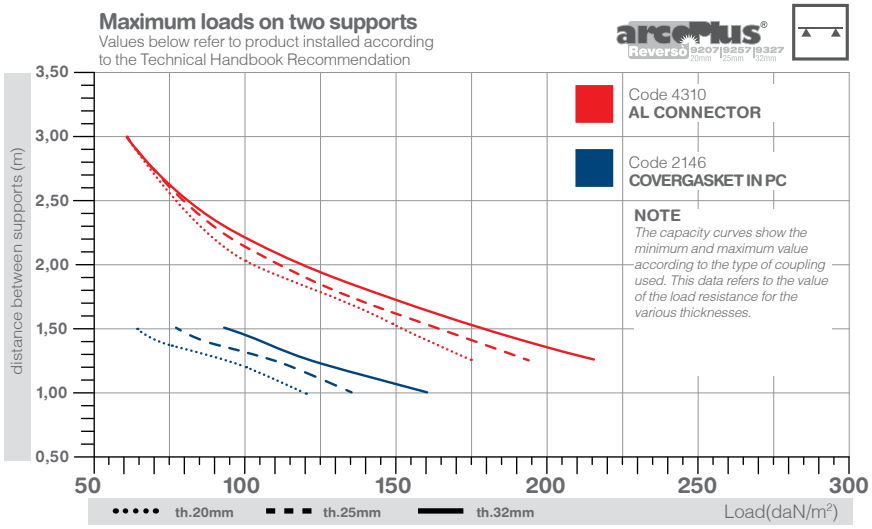
ADVANTAGES

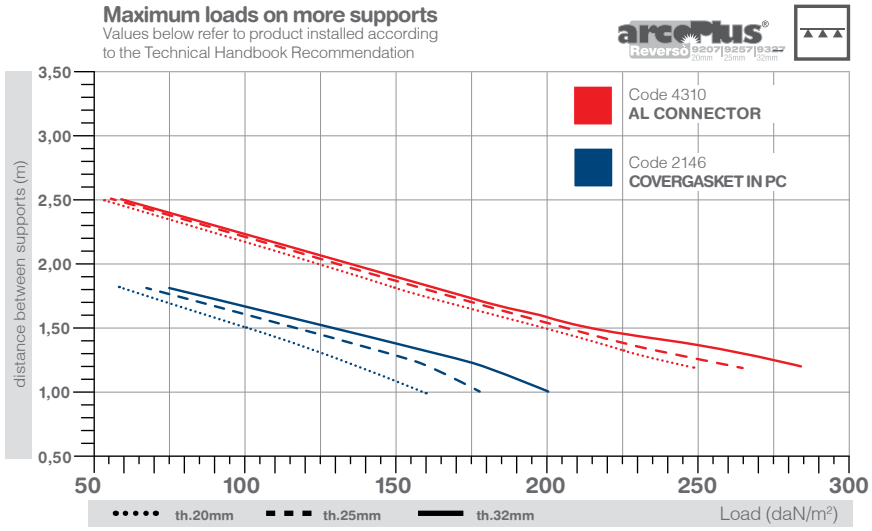
- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Bendability R.min = 4,0m (th.20mm)

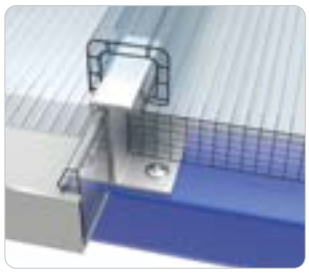
APPLICATIONS

- Translucent roofing
- Curved roofing

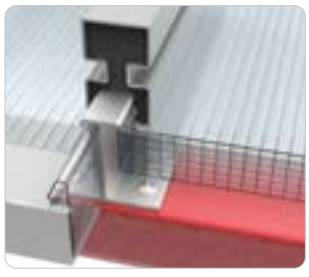
FLAT SYSTEM LOAD RESISTANCE







Cod.2146
PC COVERGASKET



Cod.4310
ALU CONNECTOR

COMPLETE SYSTEM FOR HIGH PERFORMANCE ROOFING

Suitable system to realize flat or curved roofings apps by means of multiwall modular connectable panels, that are anchored to the supporting sub-structures using special aluminum brackets to guarantee both the sealing of the load resistance. According to the project's required needs the system can be provided with polycarbonate cover gasket profile in order to reduce the structure shadows for a maximum aesthetic surface uniformity or with an aluminum connector for ensuring more load/mechanical strength.

ACCESSORIES

4303
PC cap for profile

2146
PC covergasket for Reversò panels

2179 th.20 mm
2714 th.25 mm
2710 th.32 mm
PC starter profile

2180 th.20 mm
2716 th.25 mm
2712 th.32 mm
PC terminal profile

4310
Alu connector
4499 - twister
Alu renforced connector

4319/200
Joining eclipse for Alu connector

4328 th.20 mm
4710 th.25 mm
4712 th.32 mm
Flat fastening Alu bracket

4465 dim. 50x35x875
LDPE foam pad

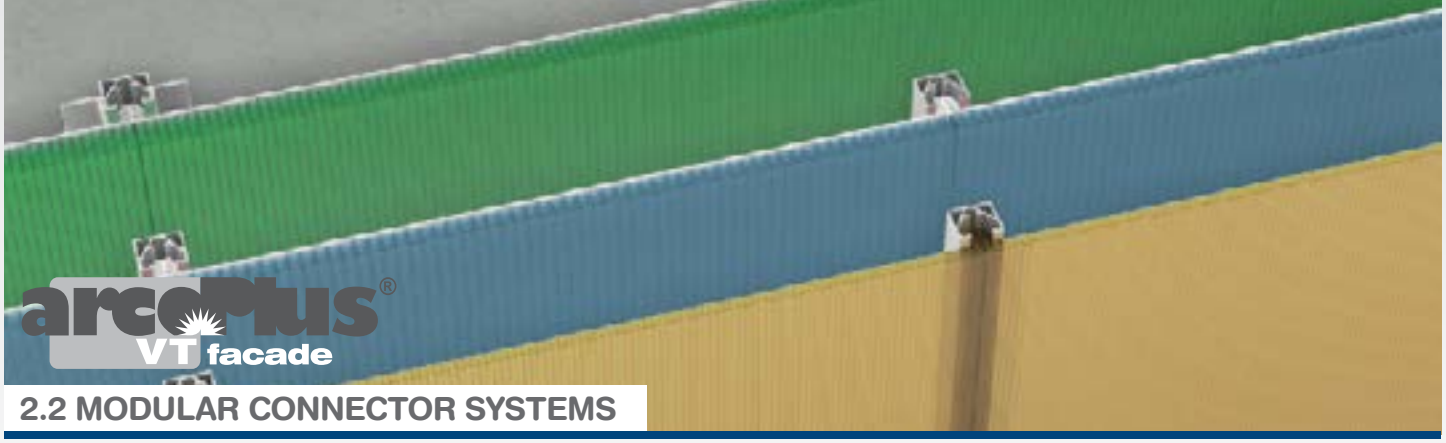
4318 (connector 4310)
4462 (connector 4499-twister)
LDPE foam pad for connector

4316 M6 spheric acorn nut UNI 5721 A2
4315 Screw M6 x 20 ISO 4762 A2
Accesories for connector

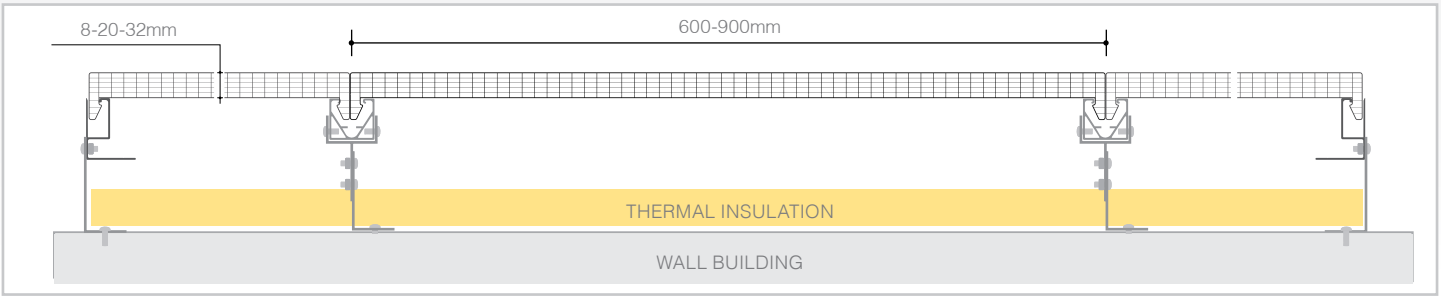
4329
LDPE foam seal strip 4x15mm

4950
Taping surcharge

4974/900/RV th.20mm
4975/900/RV th.25mm
4976/900/RV th.32mm
Alu obturating strip drip-free Reverso



2.2 MODULAR CONNECTOR SYSTEMS



Modular system of UV protected multiwall polycarbonate for special facade installation

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · TAURUS · UV TECH · ANTIGRAFF · UV UV-MATT · AR · RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Panel	684	626	9207	9327
Thickness (mm)	8	20	20	32
Structure (walls)	4	6	7	7
Effective modular width (mm)	600	600	900	900

TECHNICAL FEATURES

Thermal transmittance U (W/m^2K)	3,0	1,7	1,7	1,3
Linear thermal expansion	0,065 mm/m°C			
Temperature range	-40°C +120°C			
U.V. rays protection	Coextrusion			
Fire reaction EN 13501-1	EuroClass B-s1,d0			

DESCRIPTION

ArcoPlus®VT facade is a range of 4 modular systems composed of multiwall polycarbonate panels with 3 thicknesses options 8-20-32mm and variable number of internal walls.
Panels are framed by special aluminum profiles set to guarantee flatness of PC cladding, whatever the wall surface to be covered.

ADVANTAGES

- Easy and low-cost installation
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

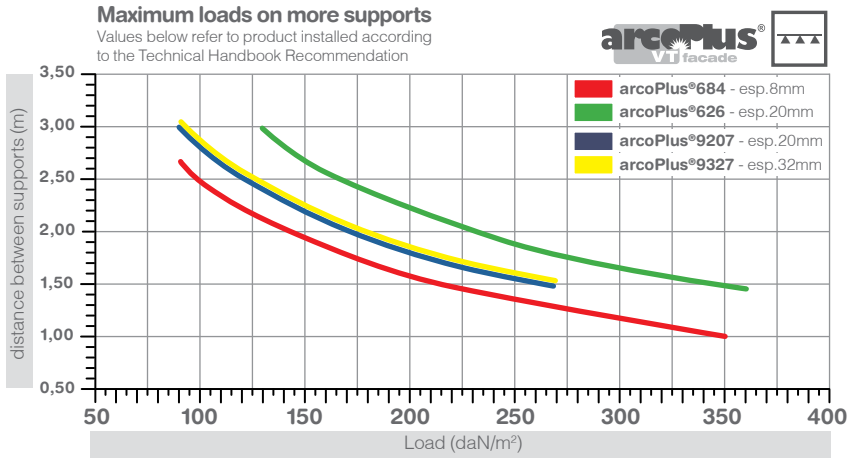
- Facade cladding
- Ventilated wall

CERTIFICATIONS

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

arcoPlus626 sistema VT facade
Avis Technique
n°2/13-1551 published 14/08/2013

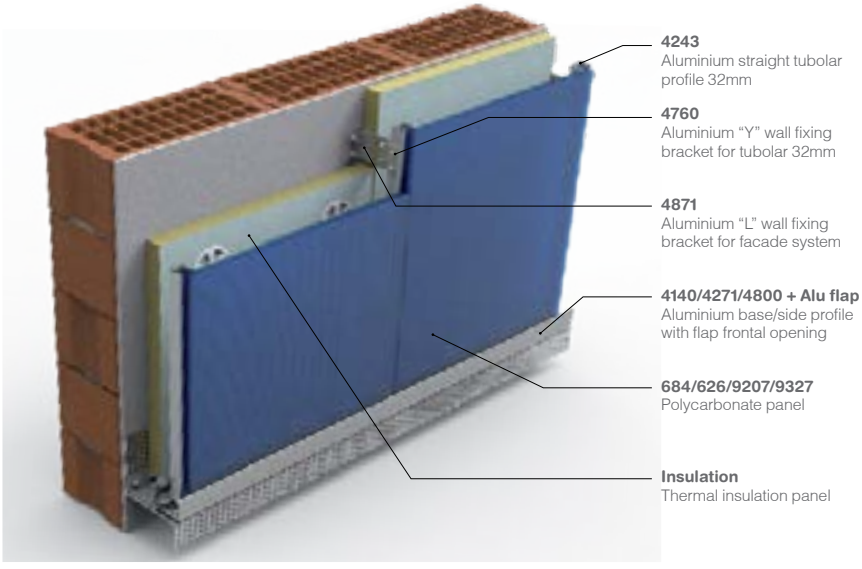
LOAD RESISTANCE

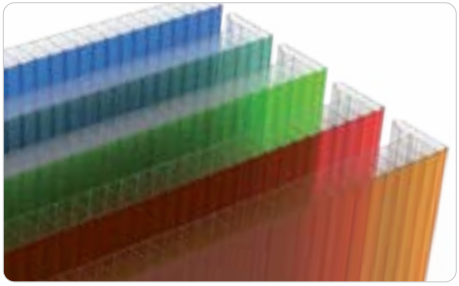


SPECIAL FACADE SYSTEM

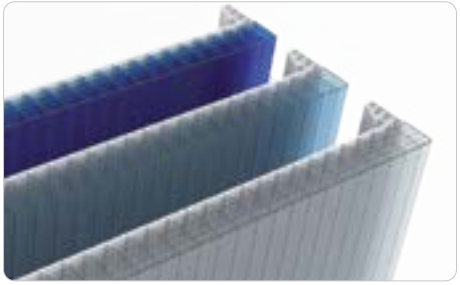
The arcoPlus®VT facade system has been designed especially for meeting the new building requirement about thermal insulation performances in external coating (EWIS). For this reason the system provides all the frame elements, both perimeter ones and support ones, in order to realize perfect installation and to guarantee water tightness related to an healthy ventilation into the cavity, even for wide dimensions applications.

Special treatments can give more benefits to the architectural project according to each environmental needs.





DOUBLE COLOR PANELS
for creating particular setting by playing with light transmission effects



ABSOLUT AB TREATMENT
Several examples of coloured panels with the white internal wall

ABSOLUT AB TREATMENT

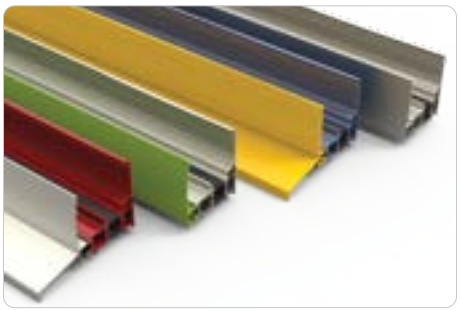
PC panels used for ventilated facades can be customized with the AB-Absolut treatment that creates an opaque (white or coloured) surface on the side closer to the masonry wall and keeping translucent (crystal or coloured) the external side. So it is possible to cover any wall blemishes, giving new life to urban requalification project, taking advantage also from the infinite Caleido possibilities.

DIFFERENT TYPES OF FLAPS
Curved and straight flaps

ACCESSORIES

The arcoPlus®VT facade system provides a complete range of accessories to manage all installation needs.
Furthermore it is recommended to close the air channels at the panels edge-end with the corresponding polycarbonate closing profiles or using micro-perforated aluminum adhesive tapes, which allow proper air-circulating and prevent the dirty accumulation.

IMPORTANT:
The fixing of the Flap profile 4725 must be carried out with adhesive seal tape 4329 and UNI EN ISO 15481:2001 4,2x13 A2 self-drilling screws.



DIFFERENT COLORS OF PROFILES
Diversify the color between the inner and outer side

JUNCTION OF ADJACENT PANEL
Paneling direct fixing to the supporting wall, maintaining the cavity for insulation material placement and air-circulation

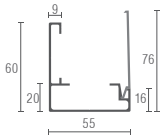
SEAMLESS CONTINUITY FOR WALL-CORNERS
Polycarbonate corner profile fixed tobelow special aluminum profile

CLADDING SIDE-END
Paneling clousure using suitable aluminum terminal profile

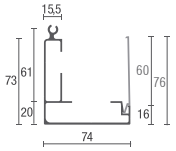
DETAIL OF CLADDING BASE
Installation of profile 4271 to create facade base-support using panels th.20mm

info@gallina.it

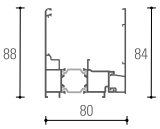
METAL PROFILES



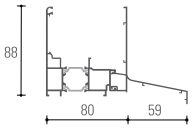
4140
Aluminium base/side profile with flap frontal opening



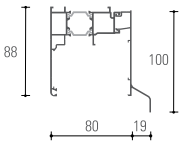
4271
Aluminium base/side profile



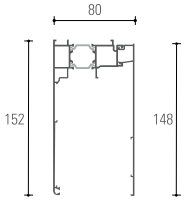
4800 + 4809
Aluminium base/upper/side profile with thermal break + straight flap



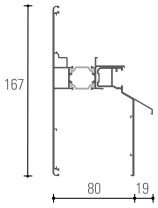
4800 + 4831
Aluminium base profile with thermal break + straight flap with drip sill



4800 + 4819
Aluminium upper profile with thermal break + straight flap with drip sill

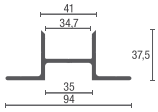


4802 + 4803
Aluminium upper snap profile with thermal break + straight flap for Oversize Heights

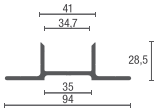


4805 + 4808
Aluminium horizontal joining profile with thermal break + straight flap for Oversize Heights

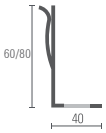
4243
Aluminium straight tubolar profile 32mm



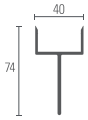
4260 (+4243)
Higher eclypse (684-626-9207)



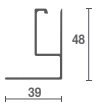
4870 (+4243)
Lower eclypse (9327)



4871 (+4760)
Aluminium "L" wall fixing bracket for facade system



4760 (+4871)
Aluminium "Y" wall fixing bracket for tubolar



4589
Aluminium end-profile

1169/B
Slip-coated rubber seal strip

1169/B/AGS
Overlap Slip-coated seal strip

4213 dim. 40x35x580
4465 dim. 50x35x875
LPDE foam pad

4970/600 - th.8mm
4974/600 - th.20mm
Alu Obturating strip drip-free serie 600

4974/900 th.20mm
4976/900 th.32mm
Alu Obturating strip drip-free serie 900

1372
Internal PE base dripping eave (+4800)

4828
flat aligner for base TB profiles

4802+4803 (th.32mm)
Aluminium upper snap profile with thermal break + straight flap for Oversize Heights

4805+4808 (th.32mm)
Aluminium horizontal joining profile with thermal break + straight flap for Oversize Heights

4140 - th.8mm
Aluminium base/side profile with flap frontal opening

4899
Aluminium rear pad (th.32mm)

4760
Aluminium "Y" wall fixing bracket for tubolar 32mm (+4871)

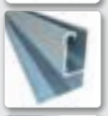
4871
Aluminium "L" wall fixing bracket for facade system (+4760)

4260
Higher eclypse +4243 (684-626-9207)
4870
Lower eclypse +4243 (9327)

ACCESSORIES

2147 th.8 mm
2179 th.20 mm
2710 th.32 mm
PC starter profile

2148 th.8 mm
2180 th.20 mm
2712 th.32 mm
PC terminal profile



4589
Aluminium end-profile

2550
Corner 90° cover profile in PC

4588 th.20 mm
4740 th.32 mm
Aluminium corner-profile

4243
Aluminium straight tubolar profile 32mm

4271 th.20mm
Aluminium base/side profile

4800 th.32mm
Aluminium base/upper/side profile with thermal break

4755 - H.30
4275 - H.100
Snap-fixed Aluminium flap

4809 (+4800)
Base/upper/side straight flap

4831 (+4800)
Base straight flap with drip sill

4819 (+4800)
Upper straight flap with drip sill

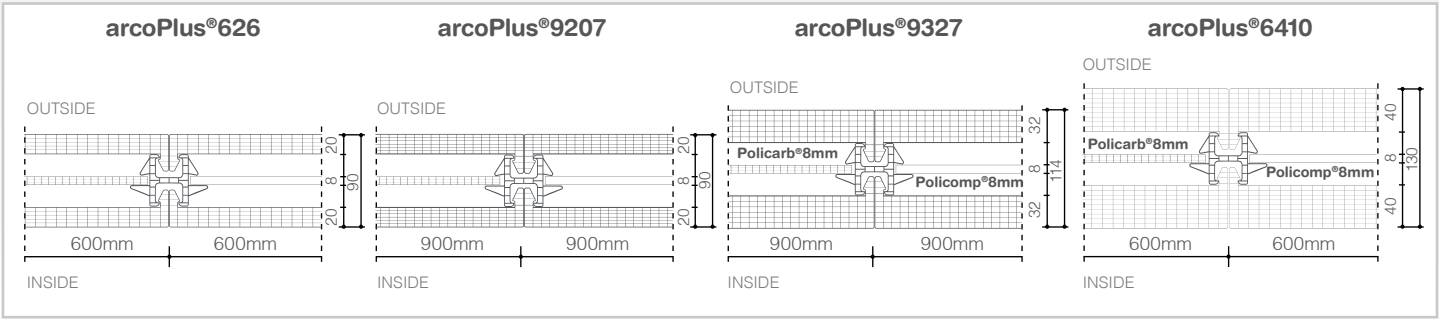
4801 (+4800)
Upper curved flap with drip sill

4804 (+4800)
Base/upper/side curved flap

4807 (+4800)
Base curved flap with drip sill

4327 th.8-20mm
4950 th.32mm
Taping surcharge

2.2 MODULAR CONNECTOR SYSTEMS



Modular system made by double or triple wall of UV protected polycarbonate for hight performance vertical translucent walls

CALEIDO · IR · AB ABSOLUTE · BC BICOLOR · TAURUS · UV TECH · ANTIGRAFFI · UV UV-MATT · AR · RF REFLECTO

SPECIAL TREATMENT

PRODUCTION STANDARDS

Panel	626	9207	9327	6410
Panel thickness (mm)	20	20	32	40
Systems thickness (mm)	90	90	114	130
Structure (walls)	6	7	7	10
Effective modular width (mm)	600	900	900	600

TECHNICAL FEATURES

* Thermal transmittance U (W/m^2K)	0,62	0,64	0,51	0,4
**Acoustic insulation R_w (dB)	26	26	27	-
***Light transmission T_v	39	34	31	26
Linear thermal expansion	0,065 mm/m°C			
Temperature range	-40°C +120°C			
U.V. rays protection	Coextrusion			
****Fire reaction EN 13501-1	EuroClass B-s1,d0			

**system with Policarb multiwall sheet; **siytem with Policomp solid sheet; ***panel Crystal, 2 layers; ****panel*

DESCRIPTION

arcoPlus®DBconnect system is designed to create high-performance vertical translucent applications; it is can be modulated with different arcoPlus® panels depending on the intended use, however, it is mainly promoted in 4 standard configurations using two arcoPlus® panels joined each other by a special connector snap profile, in oder to achieve a double vertical panelling with an internal ventilation cavity.
Thanks to its multi-wall panel structure, arcoPlus®DBconnect is the ideal solution for the realization of translucent vertical walls with very high thermal insulation benefits.
Flat roofs with min. slope 5-7%

ADVANTAGES

- Heat insulation
- Maximum light transmission
- Different interior/exterior colors

APPLICATIONS

- Vertical windows
- Translucent curtain walls

CERTIFICATIONS

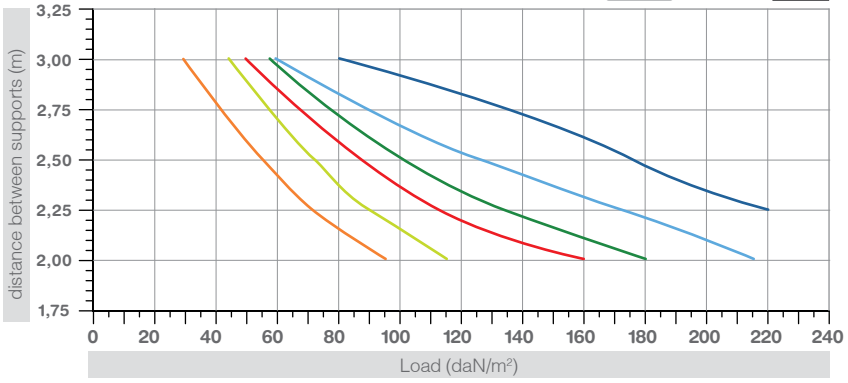
CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

arcoPlus626 Double Connector system
Document Technique d'Application
n°2/13-1582 *01Mod published in 06/10/2016

LOAD RESISTANCE

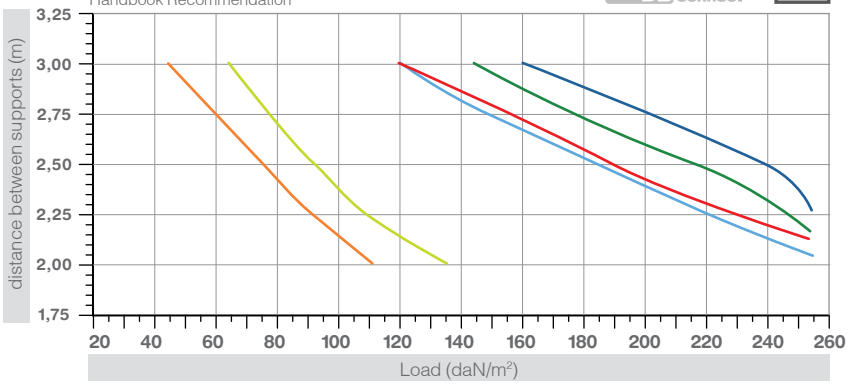
Maximum loads on two supports

Values below refer to product installed according to the Technical Handbook Recommendation



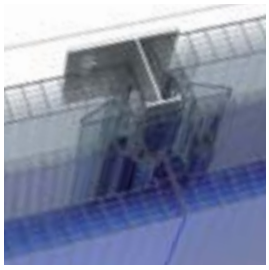
Maximum loads on more supports

Values below refer to product installed according to the Technical Handbook Recommendation



For load resistance values for the arcoPlus®6410 DBconnect system, please contact the technical-commercial office or visit www.gallina.it

The connection profile has been studied in two versions, polycarbonate and aluminium, with the aim to satisfy customized requirements about transmission effects and load resistance. Moreover, this snap-fitted system allows to not hole any panels ensuring aesthetic and functional advantages.



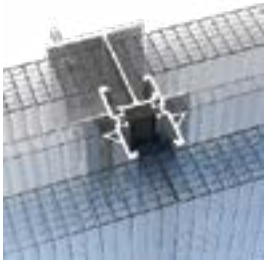
arcoPlus®626 20mm

arcoPlus®9207 20mm

arcoPlus®9327 32mm

POLYCARBONATE CONNECTOR
THERMAL INSULATION

The wall system entirely made in PC, using the double polycarbonate connector cod.2282, reduces considerably the thermal dispersion of transparent facades, and maintains the harmony of large transparencies facades.
The span between horizontal substructure support should be about 2 m high.



arcoPlus®626 20mm

arcoPlus®9207 20mm

arcoPlus®9327 32mm

ALUMINUM CONNECTOR
MECHANICAL RESISTENCE

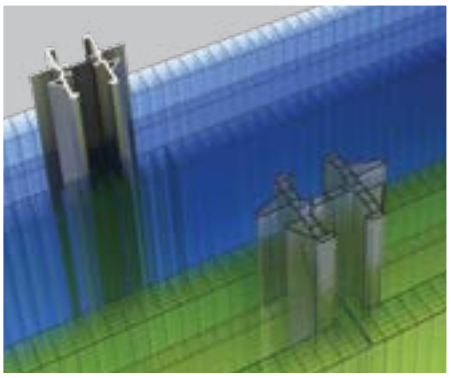
The system realized with the aluminium double connector is characterized by an better resistance to mechanical stress, thus getting a larger span between fixing supports up to 3 m of distance.

CHOOSE THE SUITABLE CONNECTOR

The choice between PC profile and Alu profile depends on final application needs and on its environmental context. Where it's required higher resistance to wind pressure the Alu one is recommended, whereas the PC solution is suitable to guarantee thermal insulation improvement.

DOUBLE CONNECTOR SYSTEM

The arcoPlus®DBconnect system allows the realization of modular walls of polycarbonate U.V. protected, with high coefficient of thermal insulation.
The polycarbonate system in the triple layer version, coupled with an exclusive Double Connector, significantly reduces the thermal dispersion of transparent facades.



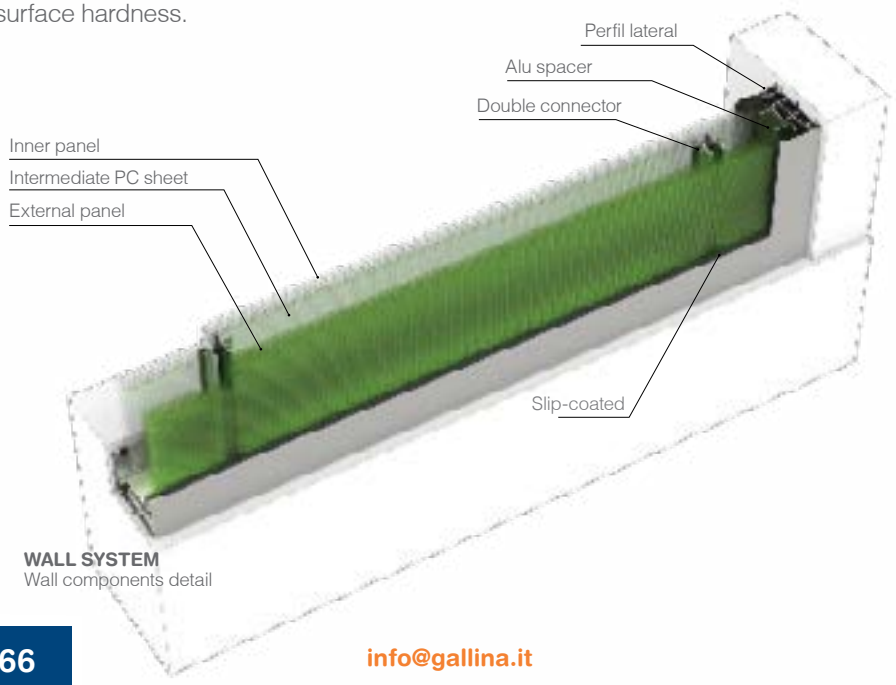
CONNECTOR DETAIL
Aluminium and polycarbonate connector

UV RAYS PROTECTION

The external surface of each polycarbonate panels is coextruded with a high concentration of UV absorbers, in order to ensure good resistance against sun exposure damage or hail impact. Better results can be offered using the special UV-tech treatment that increases even more the surface hardness.

TRIPLE LAYER DB CONNECT SYSTEM

As mentioned above arcoPlus®DBconnect allows the realization wide translucent modular walls thanks to UV protected polycarbonate panels ensuring high thermal insulation performance.
To improve this feature the system can be customized adding a third inner translucent layer made of multiwall PC sheets th.8mm.
Otherwise the additional panelling could be achieved using solid PC sheets PoliComp® without reducing the light transmission benefit.
So inside this "multi-layer wall" there are two cavities that allow the natural air circulation and the formation of thermal convection flow.

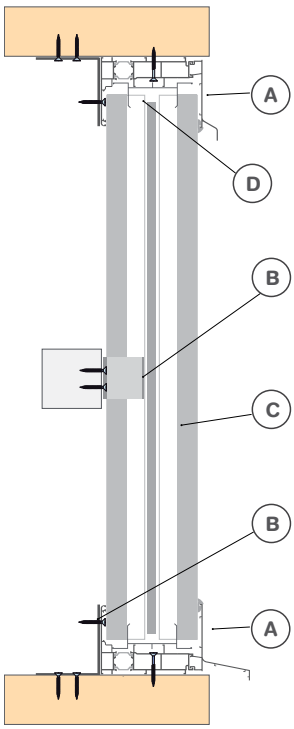


WALL SYSTEM
Wall components detail

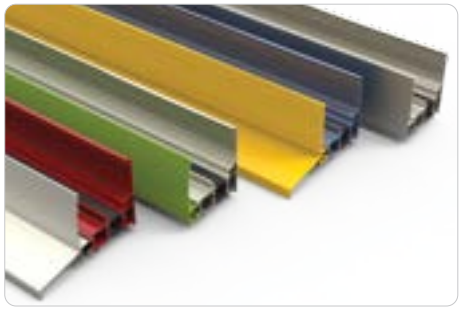
info@gallina.it

WALL SECTION EXAMPLE

The arcoPlus®DBconnect system allows to build translucent vertical walls with high thermal insulation performance.



DIFFERENT TYPES OF FLAPS
Curved and straight flaps



DIFFERENT COLORS OF PROFILES
Diversify the color between the inner and outer side

a) *Perimetral aluminum profile with thermal break*
b) *Aluminium bracket/clamp for fixing the translucent system to the substructure support*
c) *PC panels and PC start/end connection profiles to dial the façade*
d) *Closing of edge-end of PC panels with micro-perforated Alu adhesive tapes.*

ACCESSORIES

It is recommended to close the air channels at the panels edge-end using micro-perforated aluminium adhesive tapes, which allow proper air-circulating and prevent the dirty/dust accumulation.

IMPORTANT:
The fixing of the Flap profile 4725 must be carried out with adhesive seal tape 4329 and UNI EN ISO 15481:2001 4,2x13 A2 self-drilling screws.

4844
Butterfly inner spacer for Double Connector 20+20mm

1169/B
Slip-coated rubber seal strip

4722 (arcoPlus626-6410)
4723 (arcoPlus9207-9327)
Alu spacer for Double Connector

4328 th.20mm
4712 th.32mm
4723 th.40mm
Flat fastening alu bracket

4263
Flat fastening stainless steel bracket

4329 (th.20mm - th.32mm)
Single-side self-adhesive PE-LD seal strip 4*15mm

4749 (th.40mm)
Single-side self-adhesive PE-LD seal strip 6*20mm

4828
lat aligner for base TB profiles

4327 arcoPlus626
4950 arcoPlus9207-9327
4749 arcoPlus6410
Taping surcharge

4755 - H.30
4742 - H.60
4743 - H.75
4275 - H.100
Snap-fixed Aluminium flap for 4274 profile

ACCESSORIES

2282
Polycarbonate Double Connector

4833
Aluminum Double Connector

2179 th.20mm
2710 th.32mm
2840 th.40mm
PC starter profile

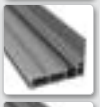
2180 th.20mm
2712 th.32mm
2842 th.40mm
PC terminal profile

2550 th.20/32mm
2549 th.40mm
Corner 90° cover profile in PC

4588 th.20 mm
4740 th.32 mm
Aluminium corner-profile (+2550)

4274
Frame TB profile for double connector th.20+20

4846
ALU perimeter profile with TB for th.20+20mm



4832
ALU perimeter profile with TB for th.32+32mm

4848
ALU perimeter profile with TB for th.40+40mm

4809 (+4832/4846/4848)
Base/upper/side straight flap

4831 (+4832/4846/4848)
Base straight flap with drip sill

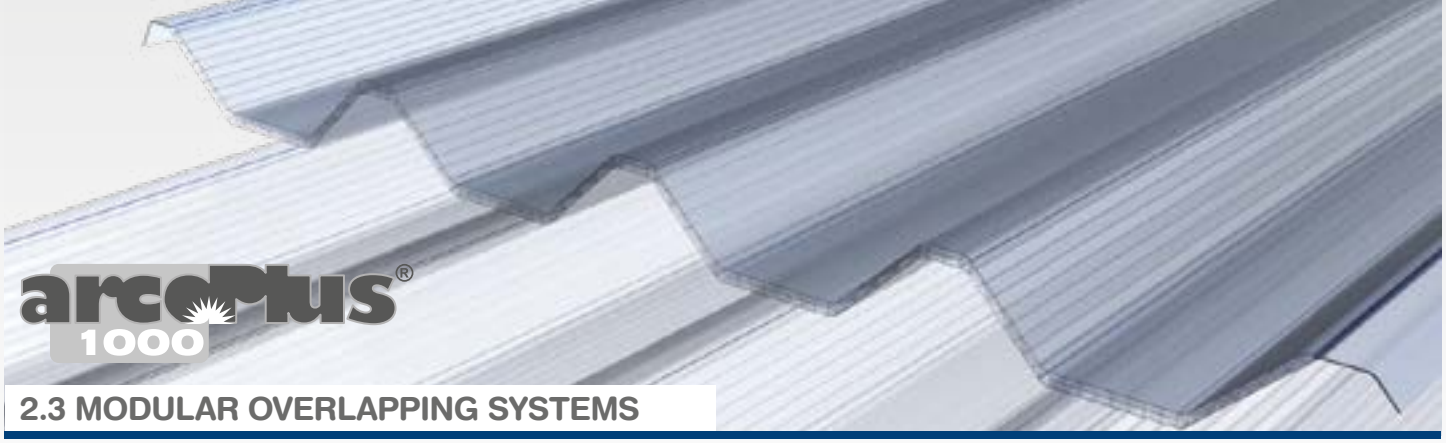
4819 (+4832/4846/4848)
Upper straight flap with drip sill

4803 - H.150
Straight flap profile for 4832-4846-4848

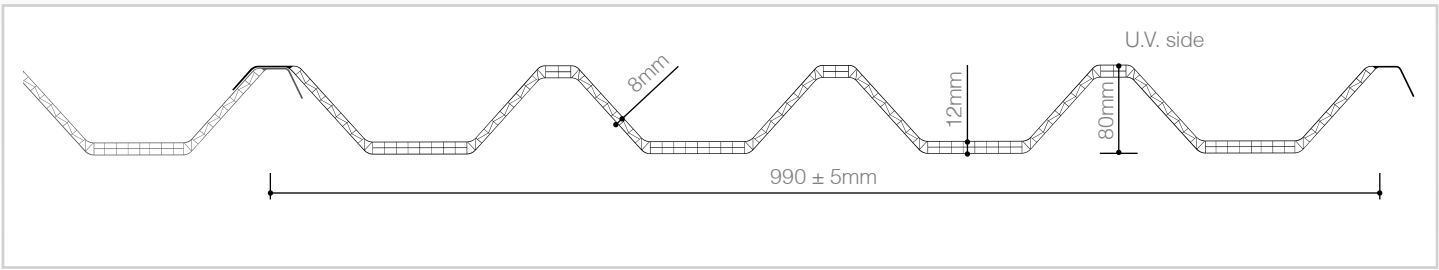
4804 (+4832/4846/4848)
Base/upper/side curved flap

4807 (+4832/4846/4848)
Base curved flap with drip sill

4801 (+4832/4846/4848)
Upper curved flap with drip sill



2.3 MODULAR OVERLAPPING SYSTEMS



Modular system of corrugated UV protected multiwall polycarbonate for translucent curtain walls and roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	variable 8÷12mm
Profile height	80mm
Structure	3 walls
Modular width	990 ± 5mm
Colours available	see page 11

TECHNICAL FEATURES

Thermal insulation U	2,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass Bs1d0
Accidental shock resistance	1.200 Joule

DESCRIPTION

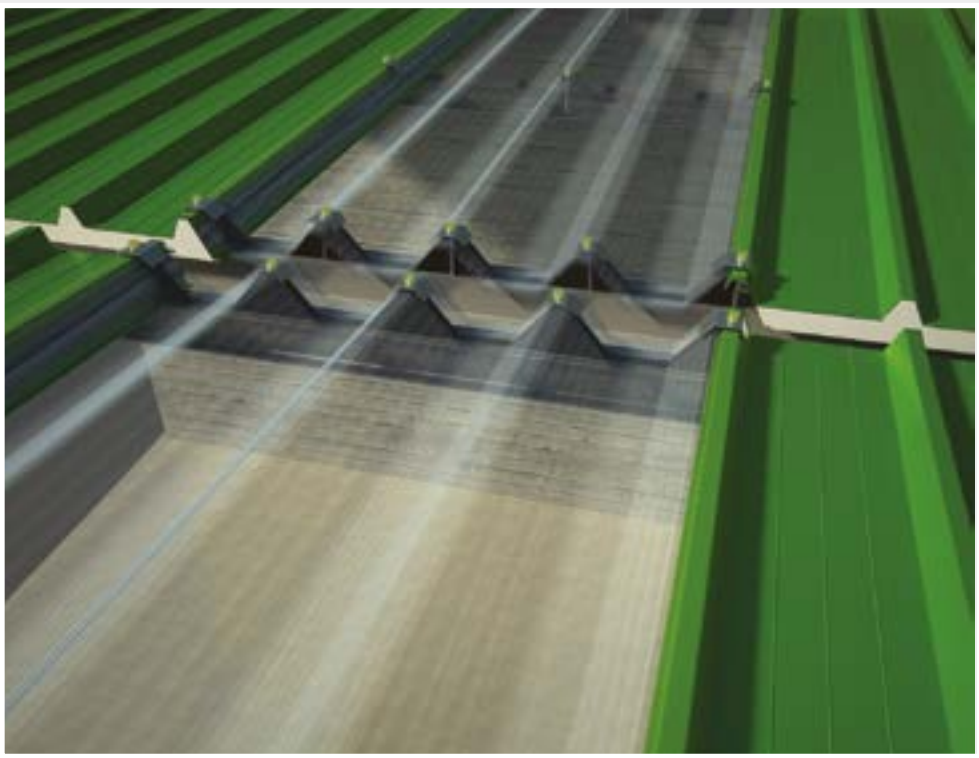
arcoPlus1000® is a modular corrugated system consisting of 3 coextruded polycarbonate walls, in 8÷12mm thickness, perfectly overlapping lengthwise and enabling continuous coverage and skylights filled gutter.
Considering the linear thermal expansion of polycarbonate, to avoid cracks at the through fixings the recommended maximum length is 5,000mm.

ADVANTAGES

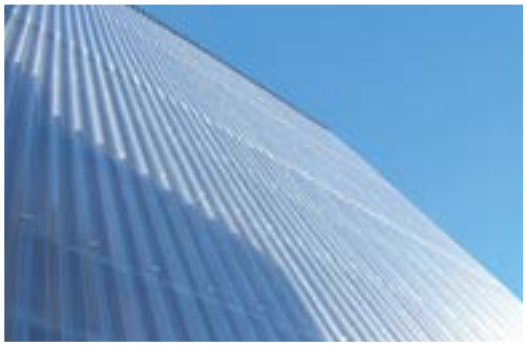
- High load resistance
- Longitudinal overlap
- Transverse overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

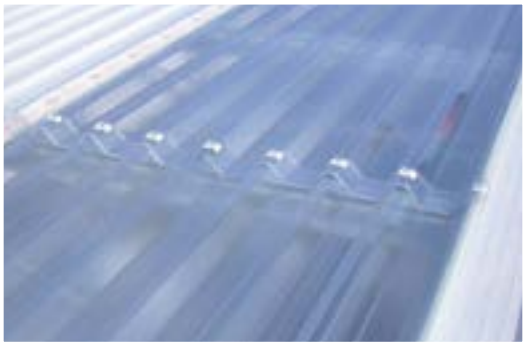
APPLICATIONS

- Vertical windows
- Roofing

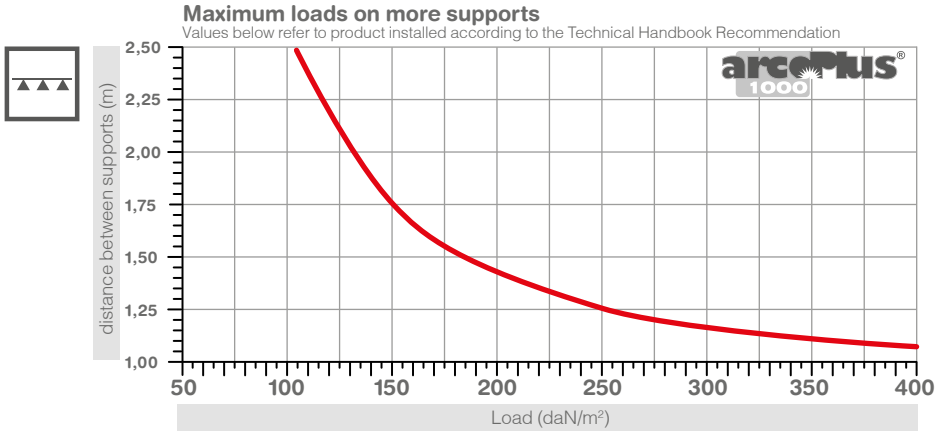


SKYLIGHT - PANEL APPLICATION
Construction of skylight with lateral overlapping of insulating roofing panels.
Detail of valley gutter



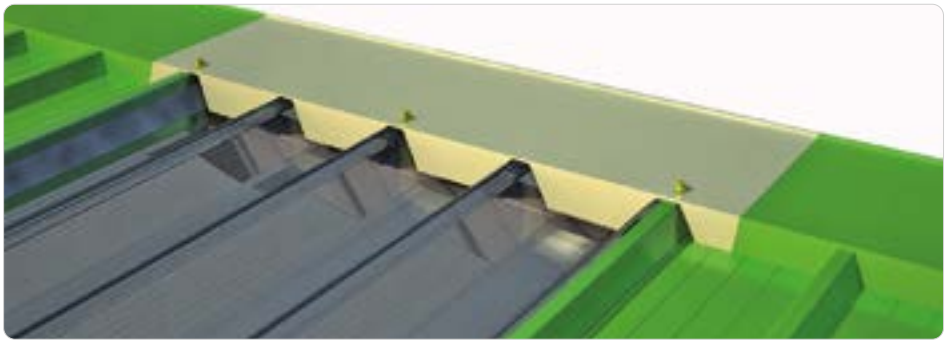


LOAD RESISTANCE
SKYLIGHT - SINGLE PANEL SYSTEM



SKYLIGHT GUTTER RIDGE APPLICATION

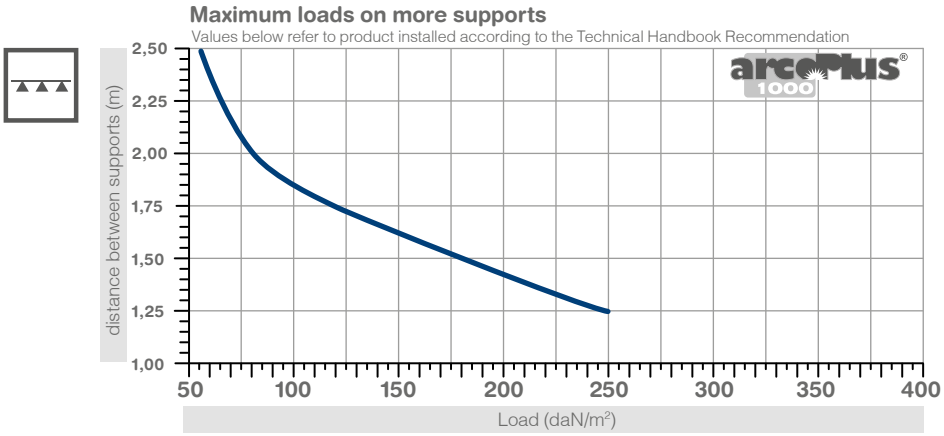
Panels laterally overlapping insulated corrugated metal roofing panels.
Thanks to the specific design of the profile the system is perfectly compatible for overlapping all the main types of panel. Minimum slope 5%.



SHEET METAL RIDGE
Pre-painted galvanised steel sheet ridge profile, consisting of two half-ridges

COVER FOOT
Detail of lateral overlapping with insulated metal panels.
Fastening of cover foot

LOAD RESISTANCE OF MULTIPLE PANEL CONTINUOUS ROOFING SYSTEM



APPLICATION ON CONTINUOUS ROOFING

Construction of continuous roofing/ wall with continuous lateral overlapping of polycarbonate panels.

For roofing, recommended minimum slope 7%.

CONTINUOUS ROOFING
Construction of continuous translucent roofing, with overlapping of panels.
Recommended minimum slope 7%

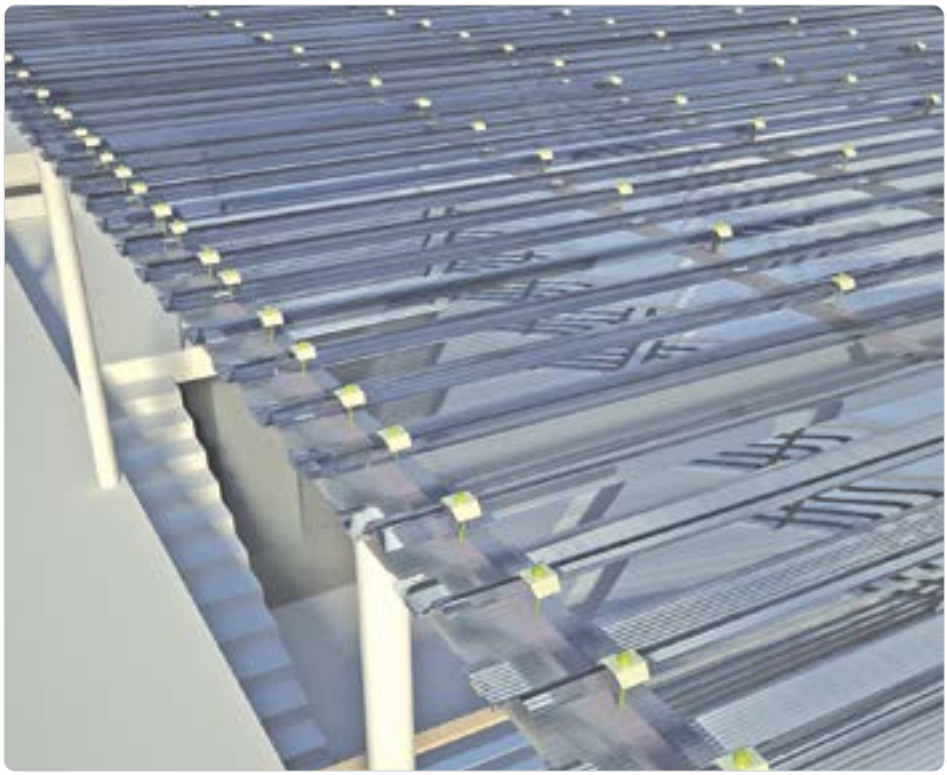
info@gallina.it



ACCESSORIES

arcoPlus®1000 is a complete system for the construction of translucent curtain walls/roofing. It includes a range of accessories that make it suitable for all purposes.
In addition to complete fastening assemblies, the system includes a tongue and groove seal, a flat strip for sealing overlap areas, a range of steel profiles including bracing brackets, and a special press-formed profile to be inserted as a reinforcement on the groove side of the panel.
For continuous roofing the panels are arranged with a continuous lateral overlap. A flat ridge to place over the adjacent ridge profiles completes the range of accessories. Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

ANCHORAGE OF ROOFING
This is done using an aluminium cap with Vipla washer and self-drilling screw



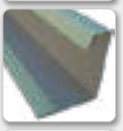
ACCESSORIES

4234
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

4229
Tongue and groove gasket in PE-LD

4250
Gasket for gutter in PE-LD



4236
Protected steel profile

4235
Central bracing bracket

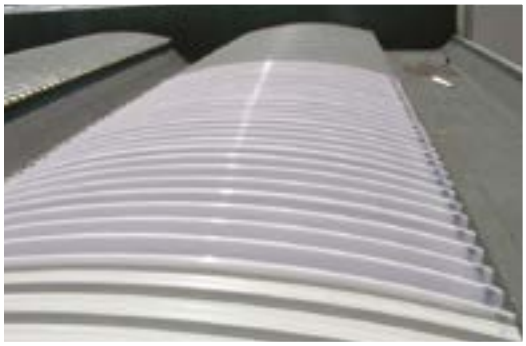
4232
Sealant tape PE-LD 20x10

4231
Roof profile (2 pieces)

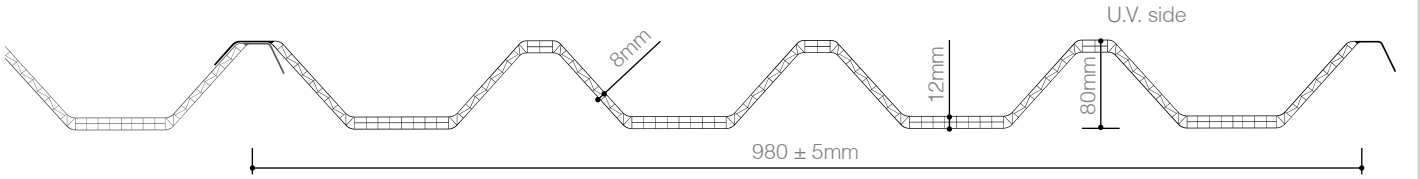
NOTE:
For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

2.3
MODULAR OVERLAPPING SYSTEMS

arcoplus® 1000 Curvo



PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	variable 8÷12mm
Profile height	80mm
Structure	3 walls
Modular width	980 ± 5mm
Colours available	see page 11

TECHNICAL FEATURES

Thermal transmittance U	2,7 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

SKYLIGHT PANEL

Creation of skylights, achieved by means of lateral overlapping of translucent components with curved metal insulated panels.

CONTINUOUS ROOFING

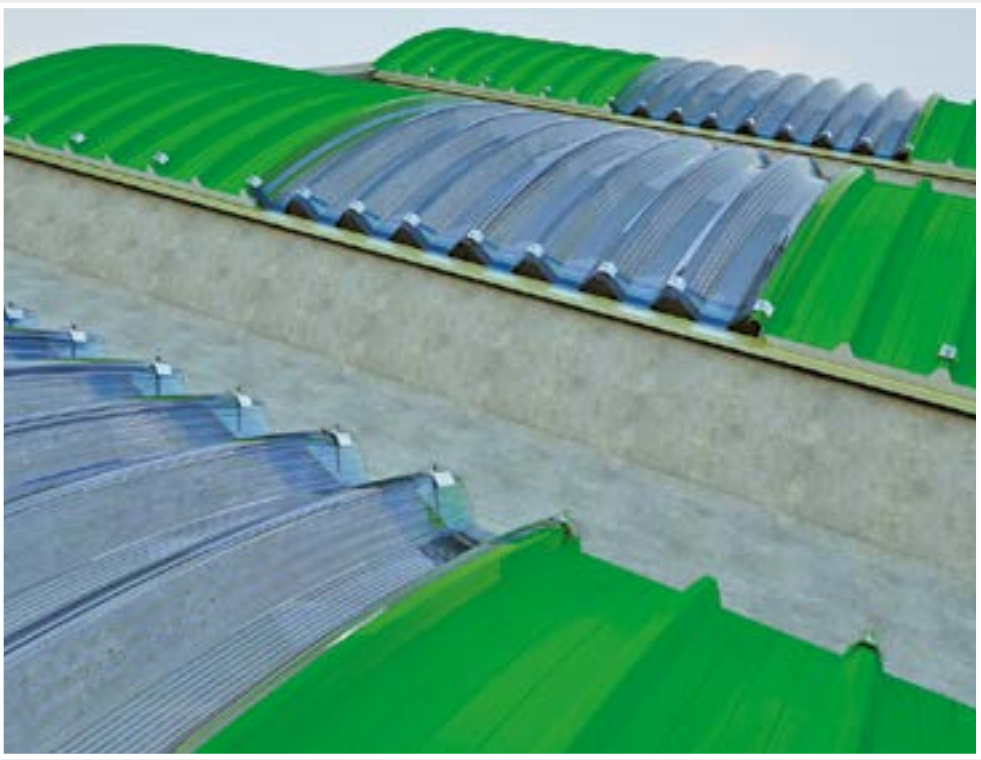
Creation of continuous roofing, achieved by means of continuous lateral overlapping of polycarbonate panels. Components are manufactured with a bend radius of R.3,300mm or R.6,000mm.

ADVANTAGES

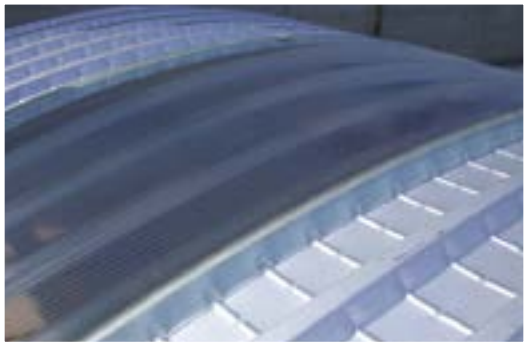
- High load resistance
- Longitudinal overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation

APPLICATIONS

Curved roofing



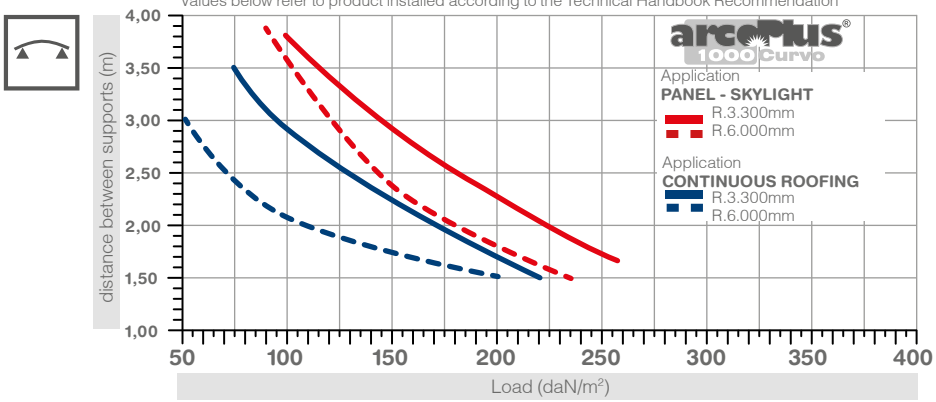
CURVED ROOFING
Detail of curved roofing in use with insulated metal panels

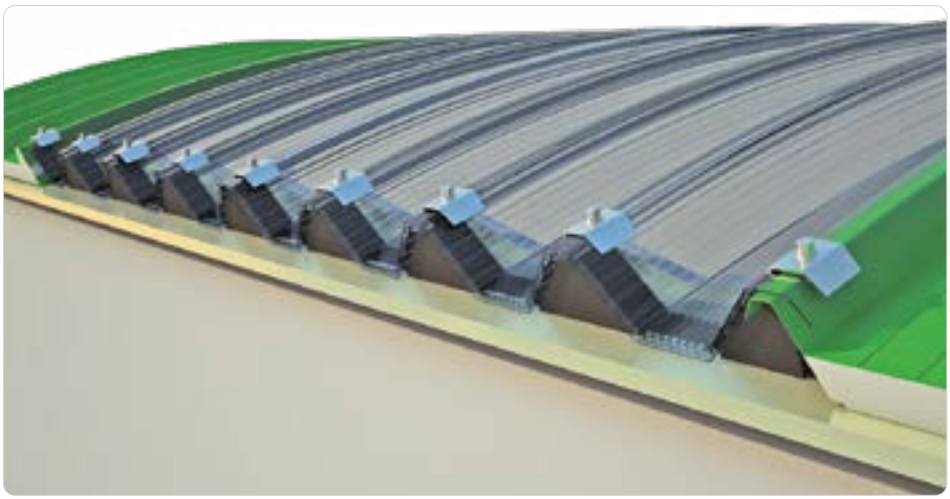


CURVED SYSTEM LOAD RESISTANCE

Maximum loads on two supports - R.3.300 - R.6.000mm

Values below refer to product installed according to the Technical Handbook Recommendation

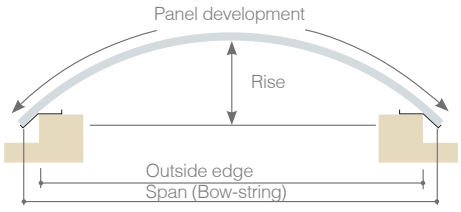




DETAIL OF ANCHORAGE
Detail of anchorage of panels to supporting structures

DEVELOPMENT TABLE

	R.3.300mm		R.6.000mm	
Span	Rise	Development	Rise	Development
1.000	38	1.016	21	1.008
1.200	55	1.221	30	1.210
1.400	75	1.428	41	1.413
1.600	98	1.636	54	1.615
1.800	125	1.845	68	1.819
2.000	155	2.057	84	2.023
2.200	189	2.270	102	2.227
2.400	226	2.486	121	2.432
2.600	267	2.705	143	2.638
2.800	312	2.927	166	2.845
3.000	361	3.152	191	3.052
3.200	414	3.381	217	3.261
3.400	472	3.615	246	3.470
3.600	534	3.854	276	3.681
3.800	602	4.098	309	3.892
4.000	675	4.349	343	4.105
4.200	754	4.608	380	4.319
4.400	840	4.875	418	4.535
4.600	934	5.151	458	4.752
4.800	1.035	5.440	501	4.971



MAXIMUM DEVELOPMENT

Radius	3.300 mm	6.000mm
Development	5.000 mm	5.800mm

ACCESSORIES

4234
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

4250
Gasket for gutter PE-LD

4235
Central bracing bracket

4232
Sealant tape PE-LD 20x10

ACCESSORIES

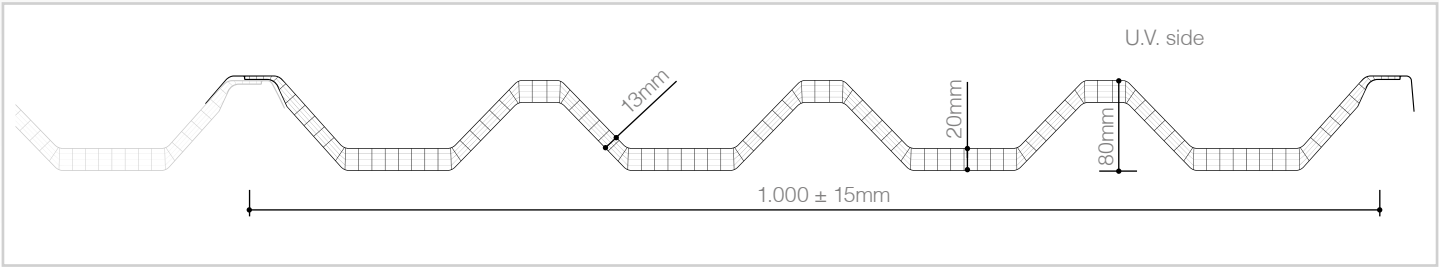
arcoPlus®1000 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes.
Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

arcoPlus® SUPER 1000

2.3 MODULAR OVERLAPPING SYSTEMS



Modular system of corrugated UV protected multiwall polycarbonate for translucent curtain walls and roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	variable 13÷20mm
Profile height	80mm
Structure	5 walls
Modular width	1.000 ± 15mm
Colours available	see page 11

TECHNICAL FEATURES

Thermal transmittance U	1,8 W/m²K
Acoustic insulation Rw (ISO 717-1)	18 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

DESCRIPTION

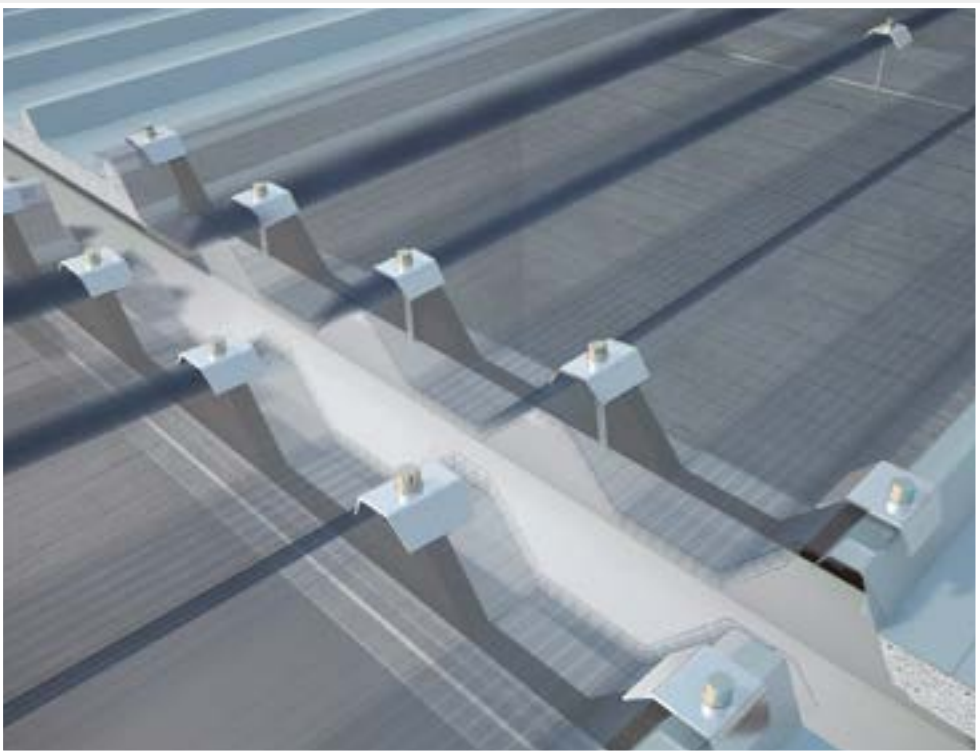
arcoPlus®SUPER1000 is a modular corrugated system consisting of 5 co-extruded polycarbonate walls, in 13÷20mm thickness, perfectly overlapping lengthwise and enabling continuous coverage and skylights filled gutter. Considering the linear thermal expansion of polycarbonate, to avoid cracks at the through fixings the recommended maximum length is 5,000mm.
For higher length of the pitch is better the use of multiple overlapping panels.

ADVANTAGES

- High load resistance
- Longitudinal overlap
- Transverse overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

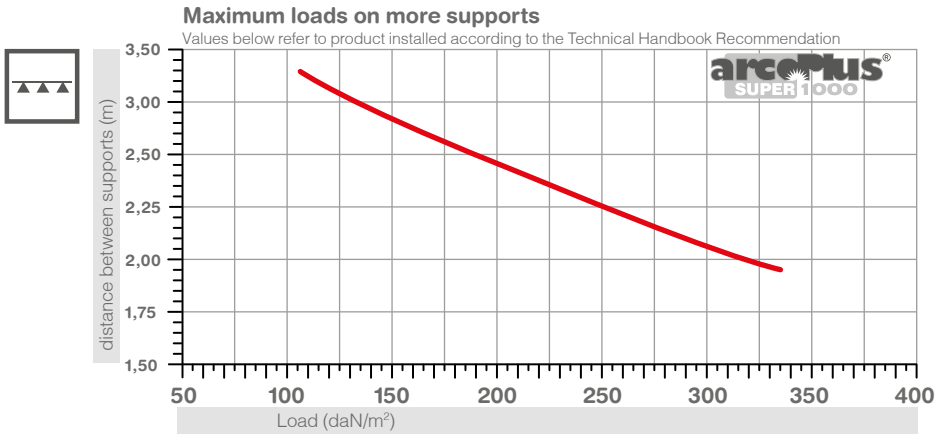
- Vertical windows
- Roofing



SKYLIGHT - PANEL APPLICATION
Construction of skylight with lateral overlapping of insulating roofing panels.
Detail of valley gutter



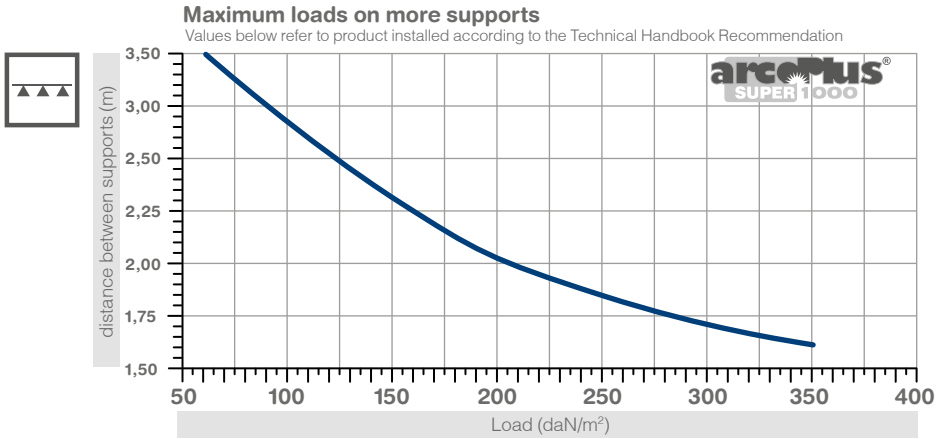
LOAD RESISTANCE SKYLIGHT - SINGLE PANEL SYSTEM



SKYLIGHT GUTTER RIDGE APPLICATION

Panels laterally overlapping insulated corrugated metal roofing panels.
Thanks to the specific design of the profile the system is perfectly compatible for overlapping all the main types of panel.
Minimum slope 5%.

LOAD RESISTANCE OF MULTIPLE PANEL CONTINUOUS ROOFING SYSTEM



APPLICATION ON CONTINUOUS ROOFING

Construction of continuous roofing/wall with continuous lateral overlapping of polycarbonate panels. For roofing, recommended minimum slope 7%.

ACCESSORIES

arcoPlus®SUPER1000 is a complete system for the construction of translucent curtain walls/roofing. It includes a range of accessories that make it suitable for all purposes. In addition to complete fastening assemblies, the system includes a tongue and groove seal, a flat strip for sealing overlap areas, a range of steel profiles including bracing brackets, and a special press-formed profile to be inserted as a reinforcement on the groove side of the panel.
For continuous roofing the panels are arranged with a continuous lateral overlap. A flat ridge to place over the adjacent ridge profiles completes the range of accessories.
Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

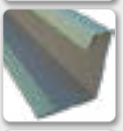
ACCESSORIES

4482
Aluminium cap with gasket

4233
Screw with 6.3x120 Vipla washer

4655
Tongue and groove gasket in PE-LD

4658
Gasket for gutter in PE-LD



4236
Protected steel profile

4235
Central bracing bracket

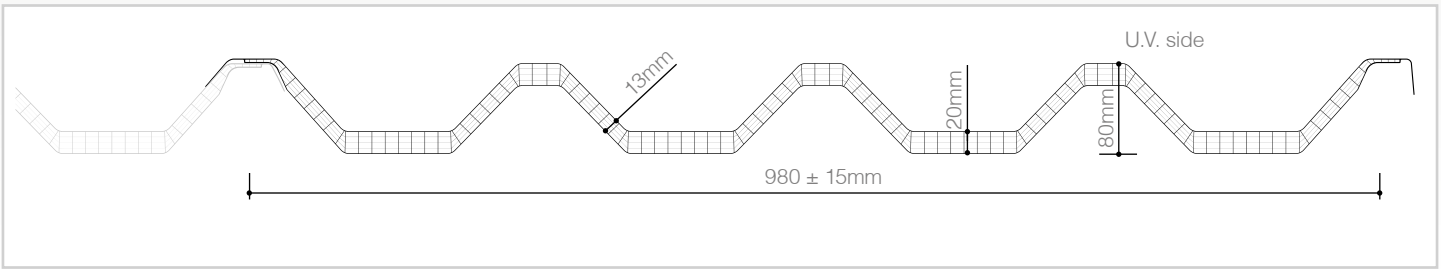
4232
Sealant tape PE-LD 20x10

4231
Roof profile (2 pieces)

NOTE:
For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

arcoPlus® SUPER 1000Curvo

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	variable 13÷20mm
Profile height	80mm
Structure	5 walls
Modular width	980 ± 15mm
Colours available	see page 11

TECHNICAL FEATURES

Thermal transmittance U	1,8 W/m²K
Acoustic insulation Rw (ISO 717-1)	18 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

SKYLIGHT PANEL

Creation of skylights, achieved by means of lateral overlapping of translucent components with curved metal insulated panels.

CONTINUOUS ROOFING

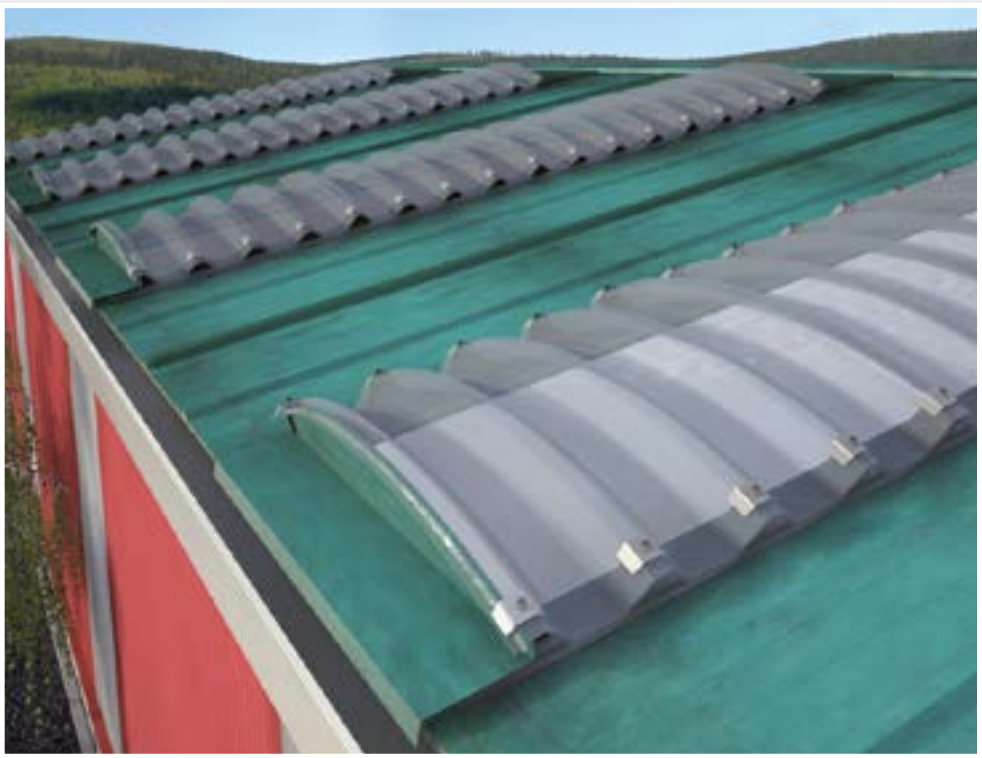
Creation of continuous roofing, achieved by means of continuous lateral overlapping of polycarbonate panels. arcoPlus®SUPER1000 is produced with a radius of curvature R.3.300mm and R.6.000mm.

ADVANTAGES

- High load resistance
- Longitudinal overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation

APPLICATIONS

Curved roofing

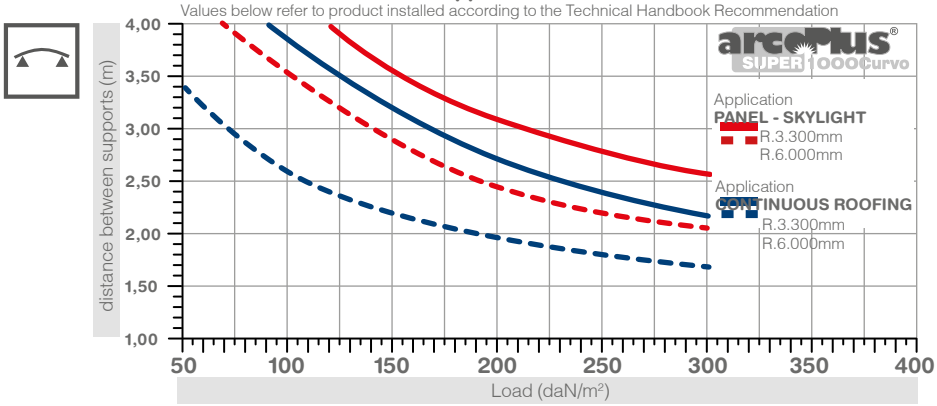


SKYLIGHT PANELS APPLICATION
Skylight gutter ridge application with cross disposition of the bent panels in polycarbonate

CURVED SYSTEM LOAD RESISTANCE

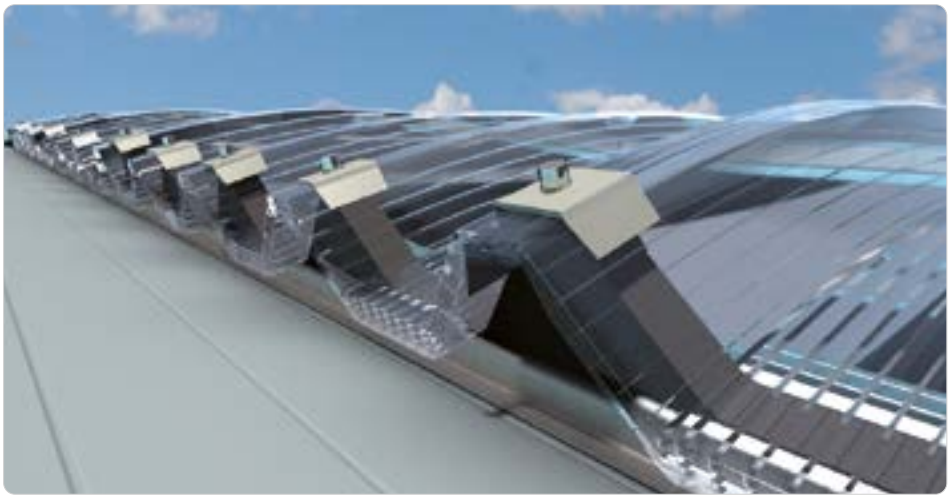
Maximum loads on two supports - R.3.300mm - R.6.000mm

Values below refer to product installed according to the Technical Handbook Recommendation



DETAIL OF ANCHORAGE

Detail of fixing panels to support structures



DEVELOPMENT TABLE

	R.3.300mm		R.6.000mm	
Span	Rise	Development	Rise	Development
1.000	38	1.016	21	1.008
1.200	55	1.221	30	1.210
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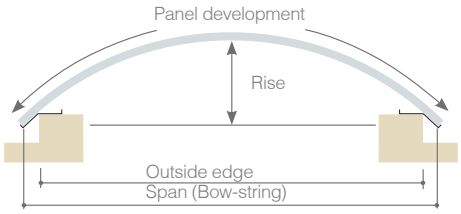
1.600	98	1.636	54	1.615
1.800	125	1.845	68	1.819
2.000	155	2.057	84	2.023
2.200	189	2.270	102	2.227
2.400	226	2.486	121	2.432
2.600	267	2.705	143	2.638
2.800	312	2.927	166	2.845
3.000	361	3.152	191	3.052
3.200	414	3.381	217	3.261
3.400	472	3.615	246	3.470
3.600	534	3.854	276	3.681
3.800	602	4.098	309	3.892
4.000	675	4.349	343	4.105
4.200	754	4.608	380	4.319
4.400	840	4.875	418	4.535
4.600	934	5.151	458	4.752
4.800	1.035	5.440	501	4.971



MAXIMUM DEVELOPMENT

Radius	3.300 mm	6.000mm
Development	5.000 mm	5.800mm

ACCESSORIES

4482
Aluminium cap
with gasket

4233
Screw with 6.3x120
Vipla washer

4658
Gasket for gutter
PE-LD

4235
Central bracing
bracket

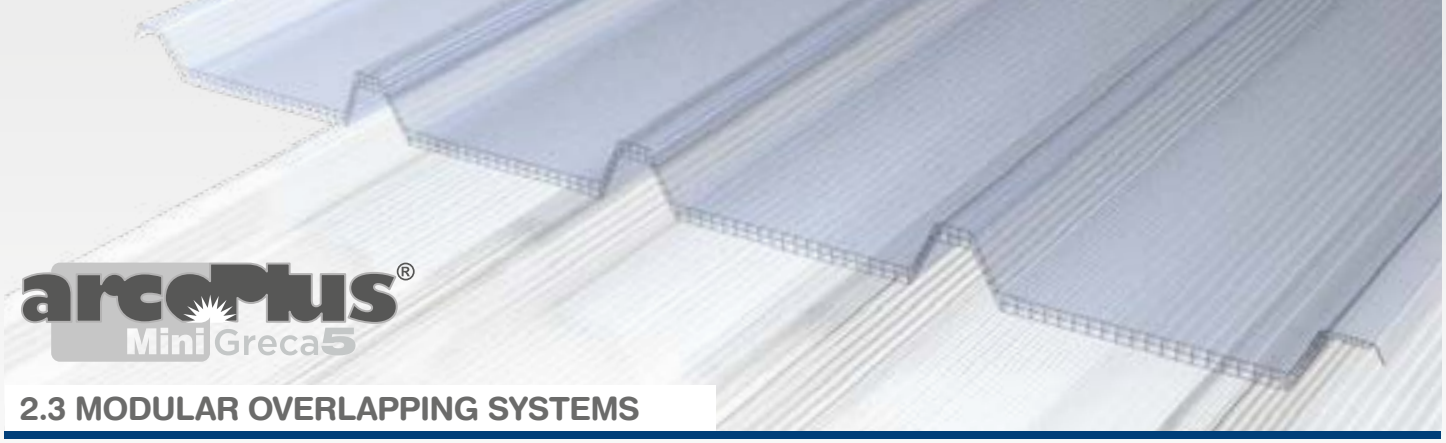
4232
Sealant tape
PE-LD 20x10

ACCESSORIES

arcoPlus®SUPER1000 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes.
Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

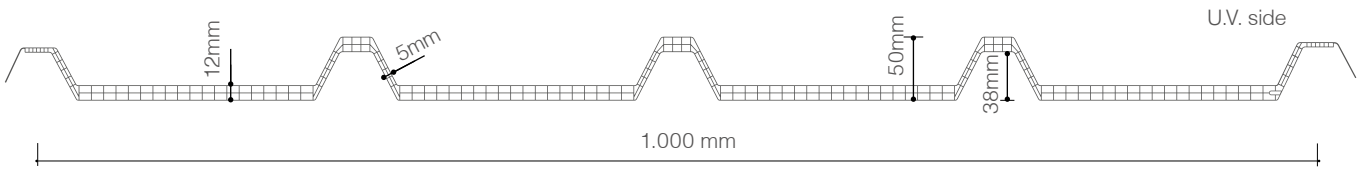
NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.



arcoplus® Mini Greca5

2.3 MODULAR OVERLAPPING SYSTEMS



Modular system of corrugated UV protected multiwall polycarbonate for translucent roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

thickness	12mm
profile height	50mm
structure	3 walls
modular width	1.000mm
colours available	Crystal - Opal

TECHNICAL FEATURES

Thermal transmittance U	2,5 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

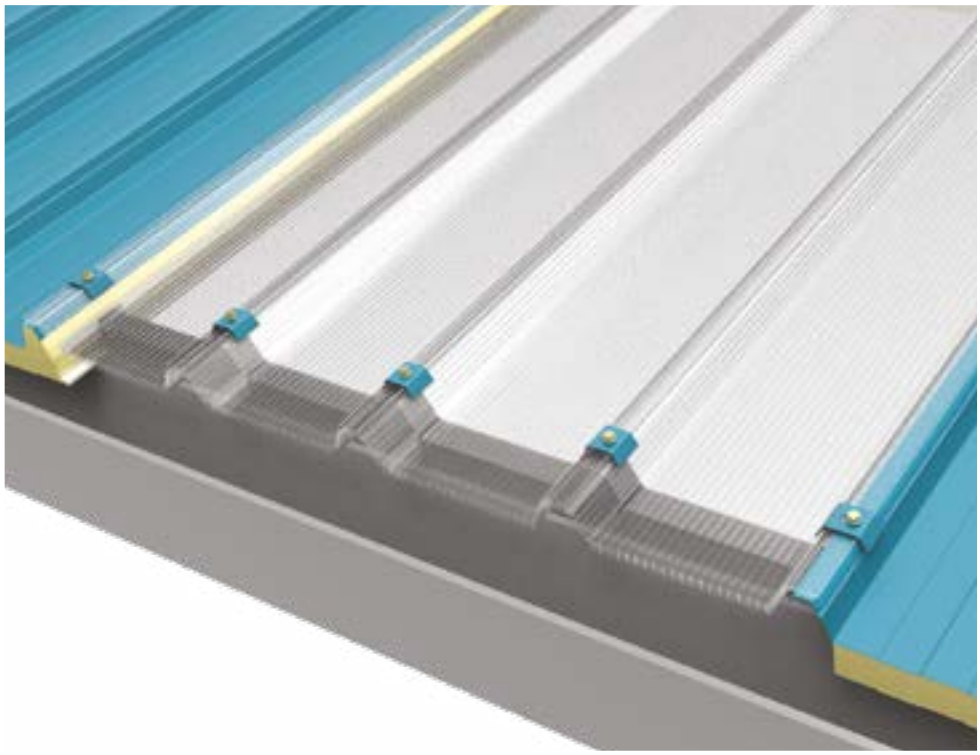
Modular system consisting of overlapping corrugated panels suitable for translucent continuous roofing and gutter-ridge skylight.
Multiwall polycarbonate panels, coextruded with a UV protection absorbers, with a height of 50mm, a useful width of 1,000mm and a section profile characterized by 5 corrugations bumps, 3 walls with a thickness of 12mm in flat areas or 8mm for the inclined bumps surfaces. The thermal transmittance value of U=2,5 W/m²K.

ADVANTAGES

- Transverse and longitudinal overlap
- Resistance to U.V. rays and to hail
- Light transmission
- Thermowelded sheets
- Heat insulation

APPLICATIONS

- Roofing and skylights





DESIGN AND EASY INSTALLATION

The arcoPlus®MiniGreca5 panels allow to create both continuous translucent roofing and gutter-ridge skylight attached to common opaque corrugated covering systems. Taking into account the linear thermal expansion of the polycarbonate, it is recommended a maximum useful length panel of 5,000mm in order to avoid any stress crack formation nearby the fixing holed points. For covering longer pitch roof face, the special profile design leads to achieve a perfect longitudinal overlapping of MiniGreca5 panels in the event of backing with the underlying structure

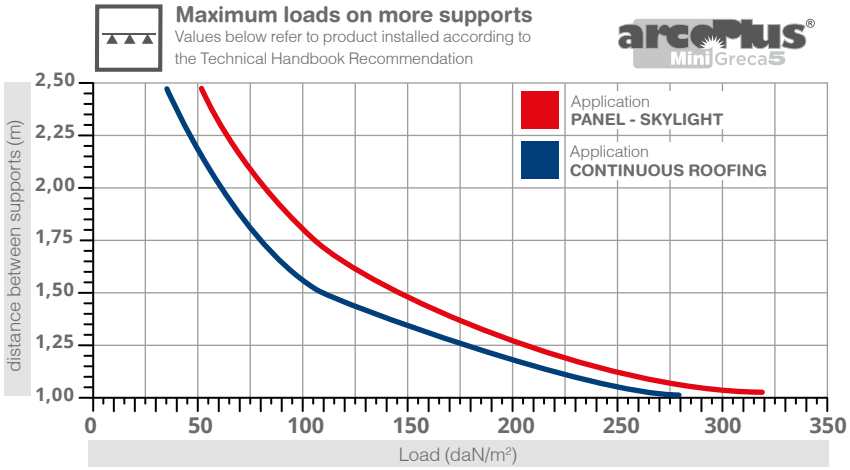
SKYLIGHT GUTTER RIDGE APPLICATION

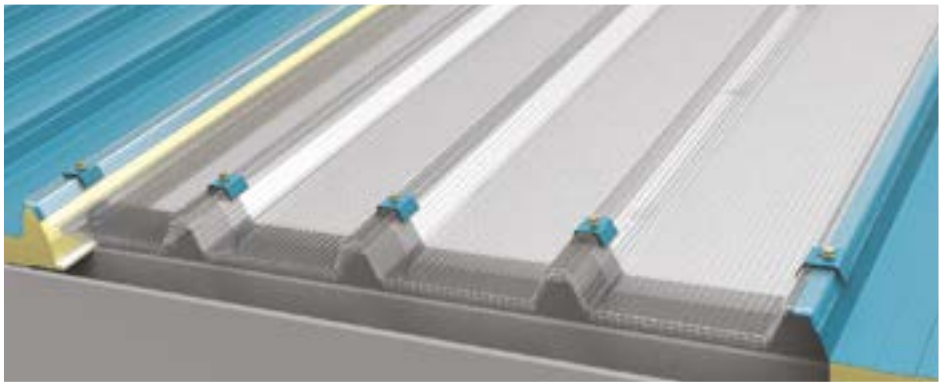
Skylight obtained by means of lateral overlapping with any type of corrugated roofing sheet.
Recommended minimum slope 5%.

CONTINUOUS ROOFING APPLICATION

Construction of continuous roofing with continuous lateral overlapping of panels.
Recommended minimum slope 7%.

LOAD RESISTANCE





THERMOWELDING

The panels can be supplied with edge ends sealed using heatwelding to avoid accumulation of dirt/bacteria into the air channels.

THERMOWELDING

Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.

ACCESSORIES

arcoPlus®MiniGreca5 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes. In addition to complete fastening assemblies, the system includes a tongue and groove seal, a flat strip for sealing overlap areas.

4234
Aluminium external cap with gasket

4517
Aluminium internal cap with gasket

4432
Screw with Vipla washer

4519
Gasket for gutter PE-LD

4518
PE-LD GrecaClick ridge bird comb ki

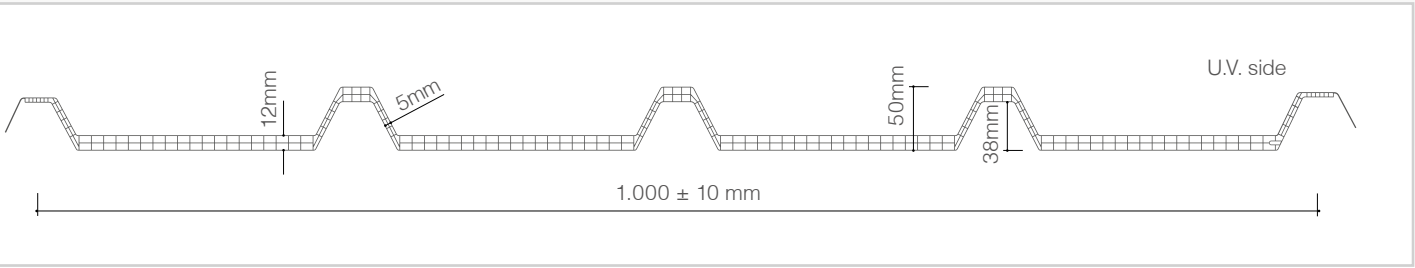
4231
Roof profile (2 pieces)

NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

arcoPlus® MiniGreca5Curvo

2.3 MODULAR OVERLAPPING SYSTEMS



Modular system of corrugated UV protected multiwall polycarbonate for translucent roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

thickness	12mm
profile height	50mm
structure	3 walls
modular width	1.000mm
colours available	Crystal - Opal

TECHNICAL FEATURES

Thermal transmittance U	2,5 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

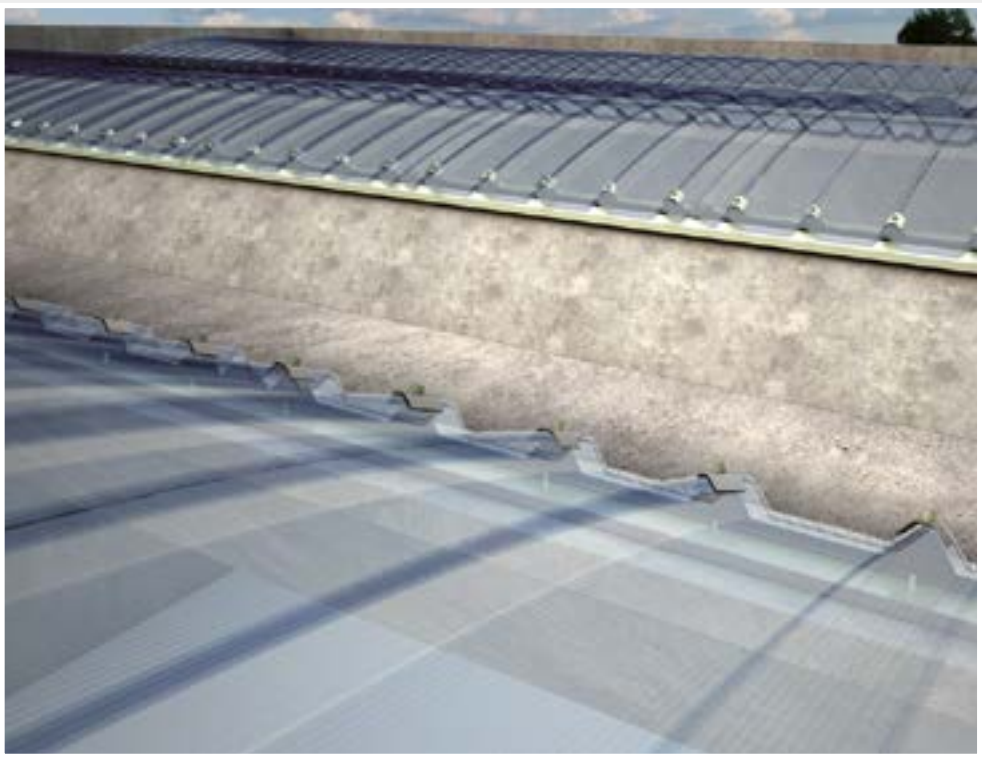
Modular system consisting of overlapping corrugated panels suitable for translucent continuous roofing and gutter-ridge skylight.
Multiwall polycarbonate panels, coextruded with a UV protection absorbers, with a height of 50mm, a useful width of 1,000mm and a section profile characterized by 5 corrugations bumps, 3 walls with a thickness of 12mm in flat areas or 8mm for the inclined bumps surfaces. The thermal transmittance value of U=2,5 W/m²K.

ADVANTAGES

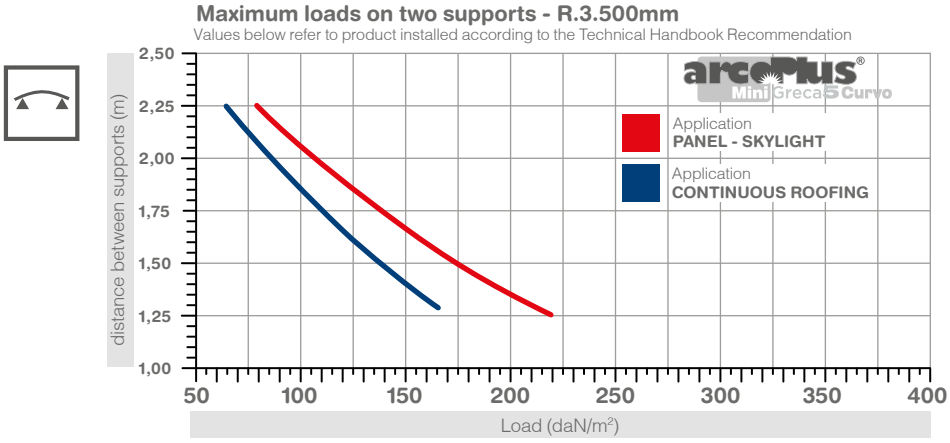
- Transverse and longitudinal overlap
- Resistance to U.V. rays and to hail
- Light transmission
- Thermowelded sheets
- Heat insulation

APPLICATIONS

- Roofing and skylights



CURVED SYSTEM LOAD RESISTANCE



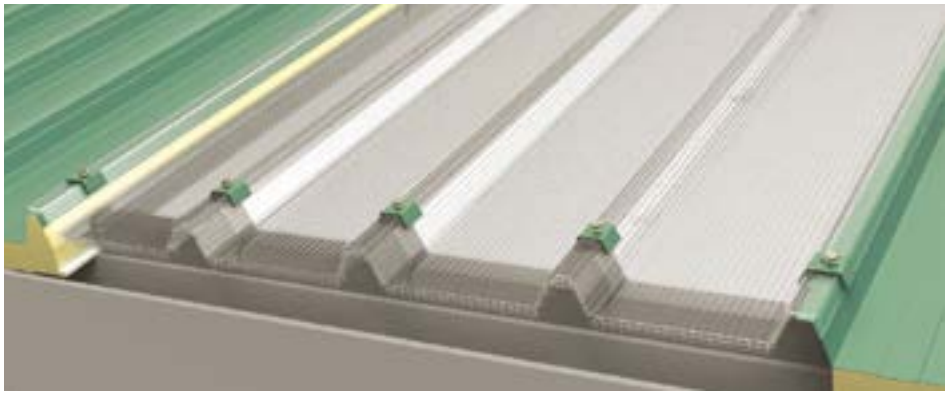
ACCESSORIES

4234
Aluminium external cap with gasket

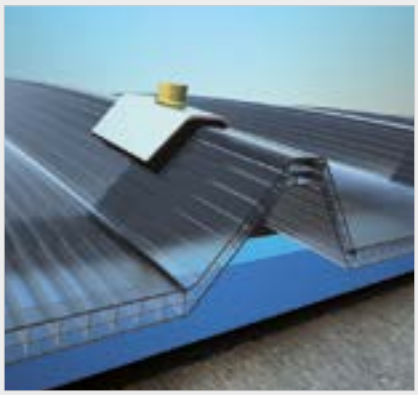
4517
Aluminium internal cap with gasket

4432
Screw with Vipla washer

4519
Gasket for gutter PE-LD

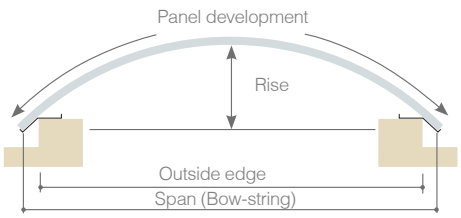


DETAIL OF ANCHORAGE
Detail of fixing panels to support structures



DEVELOPMENT TABLE
R.3.500mm

Span	Rise	Development
1.000	36	1.009
1.200	52	1.213
1.400	71	1.418
1.600	93	1.623
1.800	118	1.831
2.000	146	2.040
2.200	177	2.251
2.400	212	2.466
2.600	250	2.679
2.800	292	2.897
3.000	338	3.118



MAXIMUM DEVELOPMENT

Radius	**3.500mm**
Development	5.000 mm

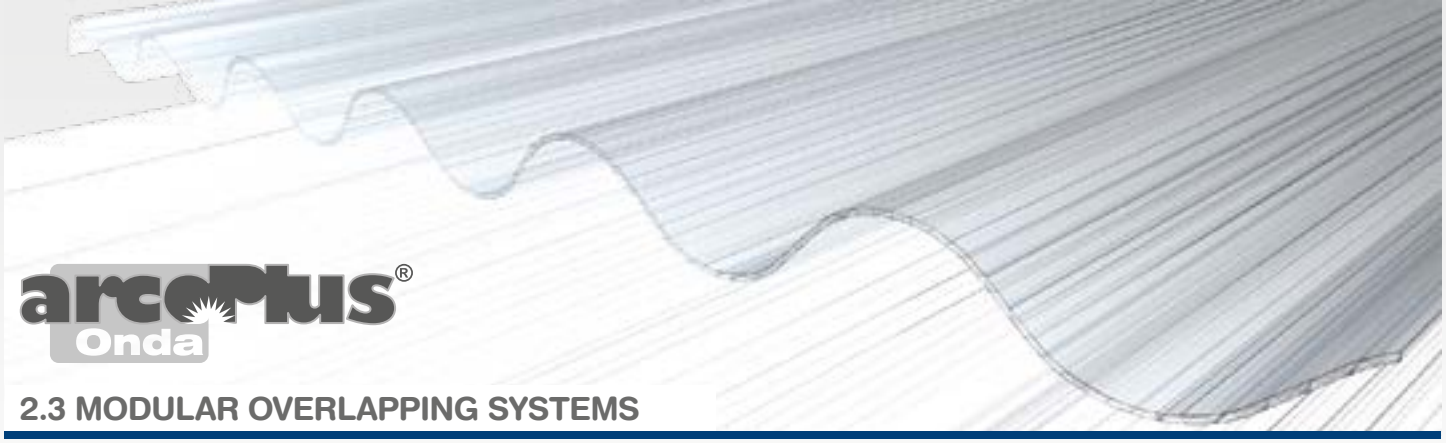
NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

ACCESSORIES

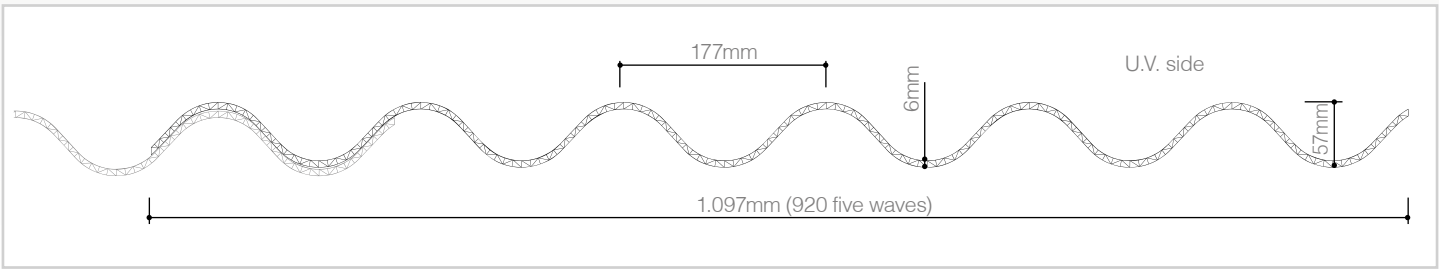
arcoPlus®MiniGreca5 is a complete system for the construction of translucent roofing and includes a range of accessories that make it suitable for all purposes.

Standard panels are supplied with heat-sealed ends to prevent soiling inside the air cells.



arcoPlus® Onda

2.3 MODULAR OVERLAPPING SYSTEMS



Modular system of corrugated UV protected multiwall polycarbonate for vertical walls and roofings translucent and opaque

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	6mm
Profile height	57mm
Corrugation pitch	177mm
Structure	3 walls with "N" structure
Modular width	1.050mm (875 on request)
Length	5.000mm (max adviced length)
Colours available	see page 11

TECHNICAL FEATURES

Thermal transmittance U	3,2 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

OVERLAP
Detail of overlapping components

ADVANTAGES

- High load resistance
- Longitudinal and lateral overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation
- Easy to install

APPLICATIONS

- Vertical windows
- Roofing

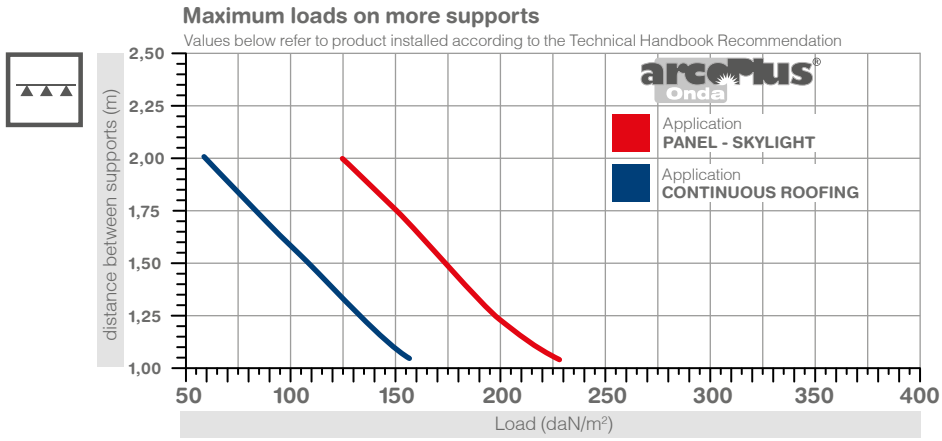
SKYLIGHT GUTTER RIDGE APPLICATION

Panels laterally overlap insulated corrugated roofing panels, or fibre cement sheets. Recommended minimum slope 7%.

ROOFING-CONTINUOUS WALL APPLICATION

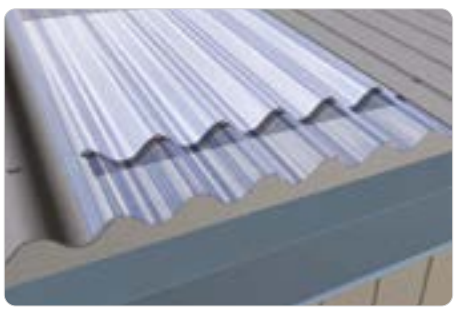
Construction of continuous roofing/wall with continuous lateral overlapping of polycarbonate panels.

FLAT SYSTEM LOAD RESISTANCE

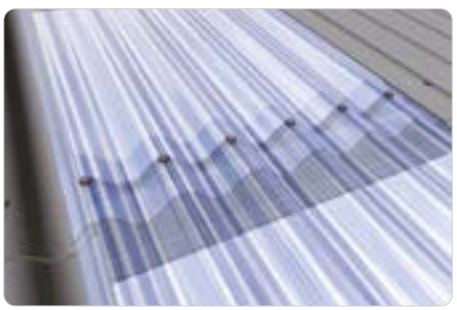


EASY AND LOW-COST INSTALLATION

The arcoPlus®Onda Piano system can be used to construct continuous translucent roofing or combined with fibre cement sheets.
The panels must be installed with the UV protected side facing the exterior, to preserve the optical and mechanical properties of the material.
If one or more transverse overlaps are required, installation must start from the cover foot (bottom) and then proceed upwards towards the ridge following the slope of the roof.
In particularly windy areas, two-flute overlaps are advisable.
Overlapping can be used to create gutter ridge skylights and continuous skylights with lateral panel overlap.



COVER FOOT
Detail of gutter line with gasket



DETAIL OF OVERLAP
Detail of overlapping components

ACCESSORIES

4256
Gasket for gutter
PE-LD

4262 6,3 x 20
4261 6,3 x 90
4374 6,3 x 120
Fixing screw with Batz

4232
Sealant tape
PE-LD 20x10

ACCESSORIES

arcoPlus®Onda, system has a complete set of accessories enabling simple installation.
The structure has fixing elements, and gaskets in order to increase resistance in overlapped areas.
arcoPlus®Onda is delivered, as a standard product, with thermowelded extremities.

THERMOWELDING

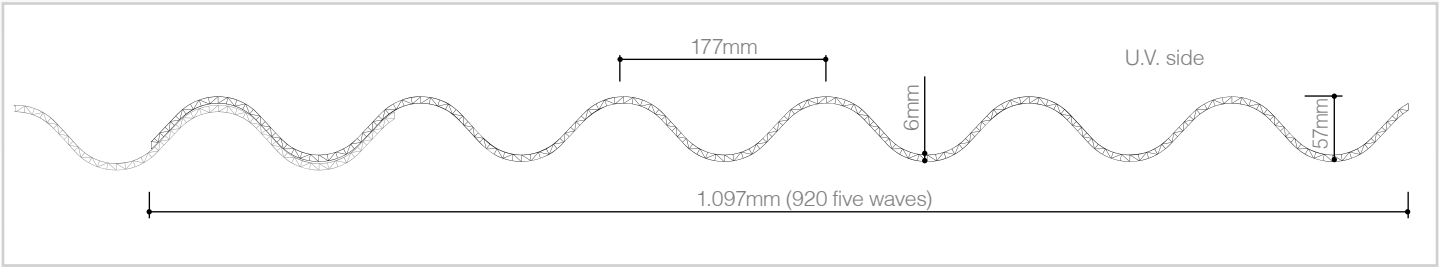
arcoPlus®Onda is delivered, as a standard product, with thermowelded extremities, up to a max length of 5.000mm.

NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

arcoPlus® Onda Curvo

PROFILE



Modular system of corrugated UV protected multiwall polycarbonate for curved translucent and opaque roofing

IR UV TECH

SPECIAL TREATMENT

PRODUCTION STANDARDS

Thickness	6mm
Profile height	57mm
Corrugation pitch	177mm
Structure	3 walls with "N" structure
Modular width	1.050mm (875 on request)
Length	5.000mm (max adviced length)
Colours available	see page 11

TECHNICAL FEATURES

Thermal transmittance U	3,2 W/m²K
Acoustic insulation Rw (ISO 717-1)	16 dB
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0
Accidental shock resistance	1.200 Joule

CURVED SYSTEM APPLICATION

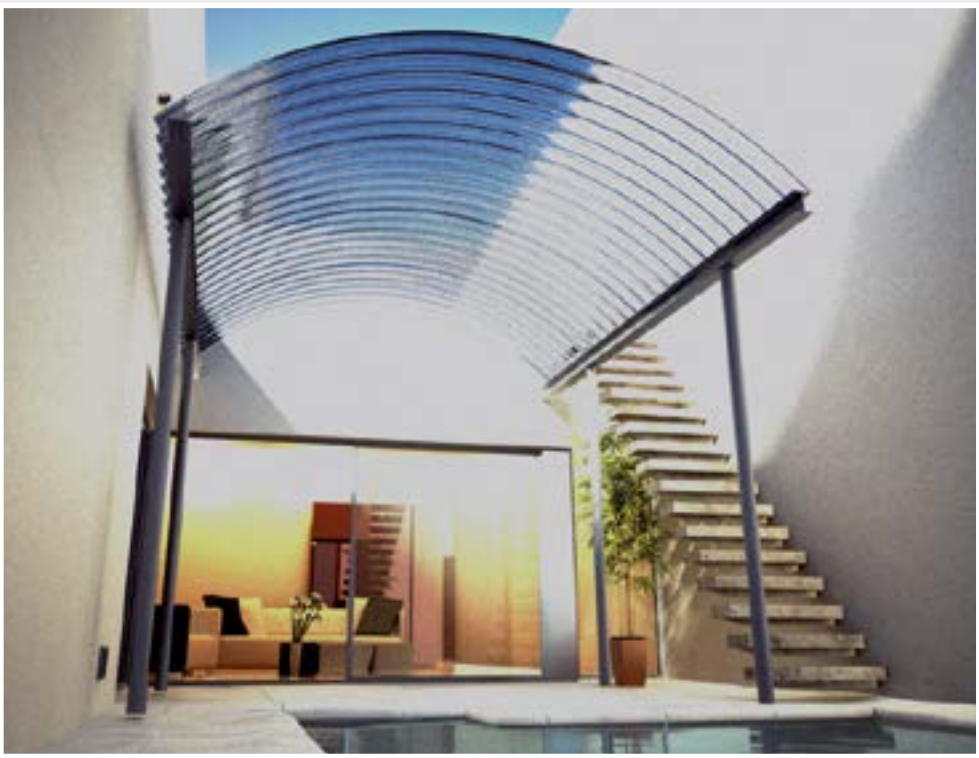
The arcoPlus®Onda Curvo system can be used to create continuous translucent roofing or used, by means of lateral overlapping, with curved fibre cement sheets or insulating panels with a curve radius of R.3,500mm. The arcoPlus®Onda profile must be installed with the UV protected side facing the exterior, to preserve the optical and mechanical properties of the material.

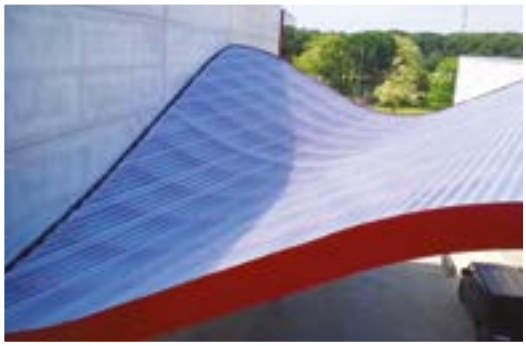
ADVANTAGES

- High load resistance
- Longitudinal and lateral overlap
- Thermowelded panels
- Light transmission
- Resistance to U.V. rays and to hail
- Heat insulation

APPLICATIONS

- Curved roofing





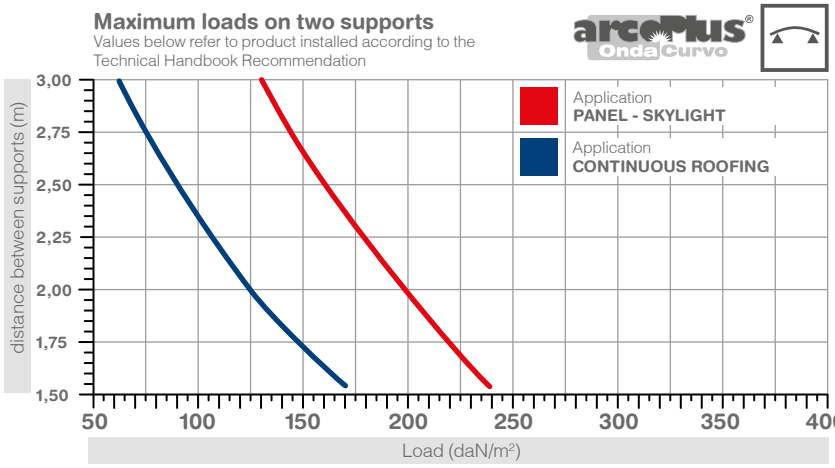
SKYLIGHT PANEL

Panels laterally overlap insulated corrugated roofing panels, or fibre cement sheets.

CONTINUOUS ROOFING

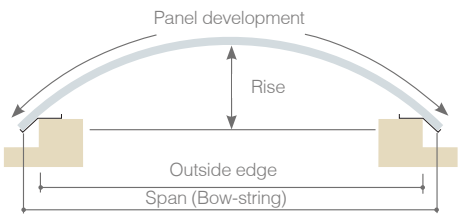
Construction of continuous roofing with continuous lateral overlapping of polycarbonate panels.
Components are manufactured with a bend radius of R.3.500mm.

CURVED SYSTEM LOAD RESISTANCE R.3.500



DEVELOPMENT TABLE R.3.500 mm

Span	Rise	Development
1.000	36	1.015
1.200	52	1.220
1.400	71	1.420
1.600	93	1.630
1.800	118	1.835
2.000	146	2.045
2.200	177	2.255
2.400	212	2.470
2.600	250	2.685
2.800	292	2.905
3.000	338	3.125



MAXIMUM DEVELOPMENT

Radius	**3.500 mm**
Development	5.000 mm

ACCESSORIES

4256
Gasket for gutter
PE-LD

4262 6,3 x 20
4261 6,3 x 90
4374 6,3 x 120
Fixing screw with Batz

4232
Sealant tape
PE-LD 20x10

ACCESSORIES

arcoPlus®Onda, system has a complete set of accessories enabling simple installation.
The structure has fixing elements, and gaskets in order to increase resistance in overlapped areas.
arcoPlus®Onda is delivered, as a standard product, with thermoweld-ed extremities.

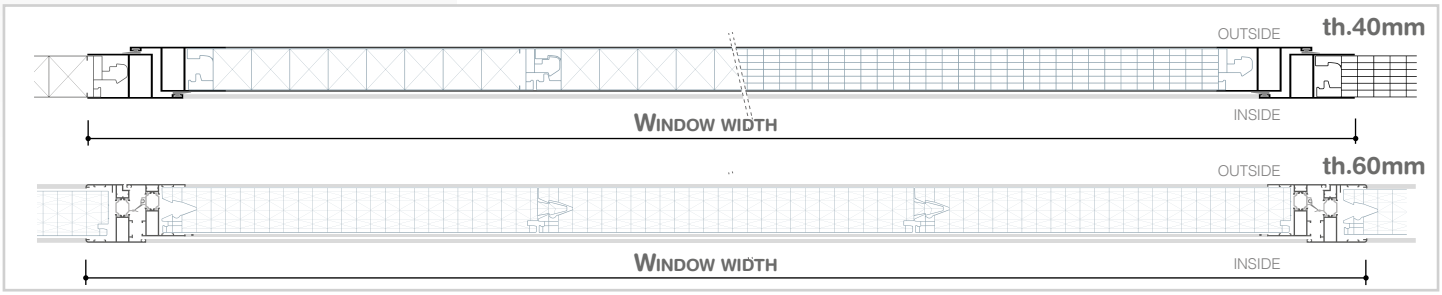
NOTE:

For proper installation, it is advisable to drill in advance the panel with a hole diameter at least 3mm larger than the screw diameter in order to compensate the thermal expansion.

arcoPlus® Openable System

PROFILE

CE EN 14351 -1



Openable windows in UV protected polycarbonate to ventilate buildings

DESCRIPTION

With the arcoPlus® opening systems, manually or motor-operated windows can be fitted into the curtain walling to ventilate the building.
These consist of suitably sized aluminium frames, which are housed in the same base profile used for the fixed part.
The frames are supplied complete with compass hinges for widths of up to 4 staves. External hinges are provided for widths of more than this (th.40mm). The windows are supplied complete with gaskets.

PRODUCTION STANDARDS

arcoPlus® 324 — th.20mm

WINDOW HEIGHT	WINDOW WIDTH			
PANELS	3	4	5	6
	1.180	1.513	1.846	2.180
till 1.000mm	*	*	*	*
1.250mm	*	*	*	*
1.500mm	*	*	*	*
1.750mm	*	*	-	-

NB: Opening systems with a thickness of 20mm that are more than 1.513mm (4 staves) wide, are supplied with external hinges.

CE EN 14351 -1

arcoPlus® 344x — th.40mm

WINDOW HEIGHT	WINDOW WIDTH			
PANELS	3	4	5	6
	1.250	1.580	1.915	2.250
till 1.000mm	*	*	*	*
1.250mm	*	*	*	*
1.500mm	*	*	*	*
1.750mm	*	*	-	-
2.000mm	*	*	-	-
2.250mm	*	*	-	-
2.500mm	*	*	-	-

arcoPlus® 547_549 — th.40mm

ON REQUEST, MADE WITH PROFILES OF THERMAL BREAK

WINDOW HEIGHT	WINDOW WIDTH		
PANELES	2	3	4
	1.250	1.750	2.250
till 1.000mm	*	*	*
1.250mm	*	*	*
1.500mm	*	*	*
1.750mm	*	*	-
2.000mm	*	*	-
2.250mm	*	*	-
2.500mm	*	-	-

NB: Manually-operated opening systems with a thickness of 40mm are only supplied with the multi-function control.

arcoWall® 5613 — th.60mm

MADE WITH PROFILES OF THERMAL BREAK

WINDOW HEIGHT	WINDOW WIDTH			
PANELS	2	3	4	5
	1.205	1.705	2.205	2.705
till 1.000mm	*	*	*	*
1.250mm	*	*	*	*
1.500mm	*	*	*	*
1.750mm	*	*	*	-
2.000mm	*	*	*	-
2.250mm	*	*	-	-
2.500mm	*	*	-	-

ADVANTAGES

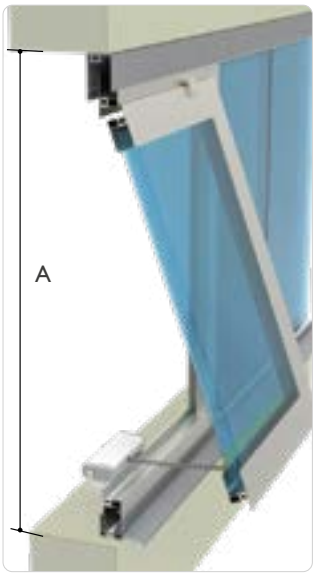
- High load resistance
- Light transmission
- Resistance to U.V. rays and to hail
- Thermal insulation
- Easy to install

APPLICATIONS

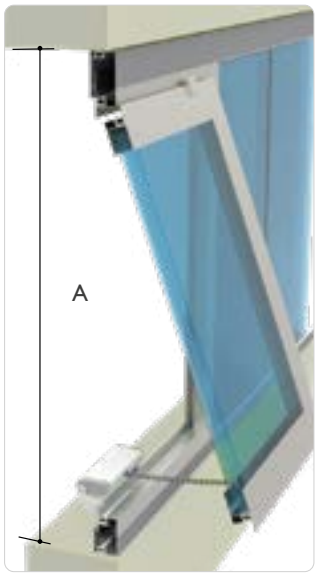
- Vertical openable windows



WINDOWS DIMENSION



WITH EAVE
H. window th.20*
H. window th.40 = A-50mm
H. window (TT) th.40 = A-80mm



WITHOUT EAVE
H. window th.20*
H. window th.40 = A-45mm
H. window (TT) th.40 = A-70mm

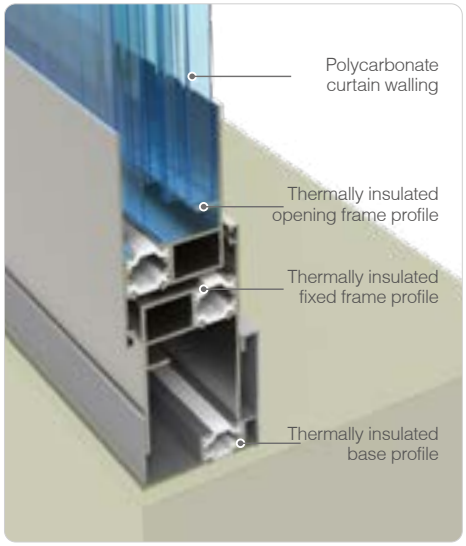
TOP PROFILE
Frame insertion

WITHOUT EAVE
Insertion on base profile

WITH EAVE
Insertion on base profile

HINGED FRAMES WITH THERMAL ISOLATION

In order to guarantee the maximum thermal isolation and respect the air/light relation, hinged frame systems in arcoPlus® with thermally isolated aluminium profiles are available.



The air cells of the polycarbonate panels must be sealed using vented aluminium breather tape.
This allows correct ventilation and prevents soiling on the inside.

CHAIN ACTUATOR
New double knit motors for automatic opening of frames

ACCESSORIES

4547
Double knit chain actuator with single thrust point

4548
Double knit chain Syncro actuator with multiple thrust points

4553
Rack actuator
350 mm stroke

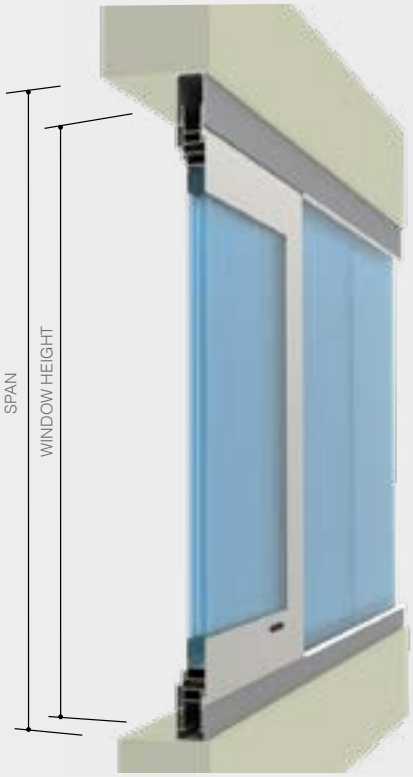
4554
Rack actuator
500 mm stroke

4209
Manually-operated handle

4210
Multi-function manual control

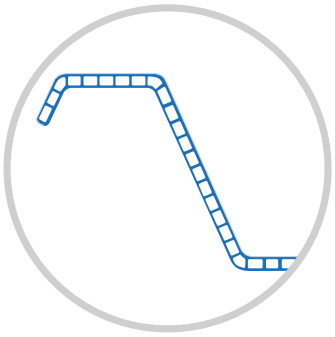
4309
External hinges for frame

** Please contact our Technichal Office*



TEGOPLUS®

UV protected polycarbonate corrugated sheets with “microalveolare” structure for roofing and transparent curtain walls



Detail "microalveolare" structure

TECHNICAL FEATURES

Thickness	2,5 - 3,0 mm
Thermal transmittance U	4,6 W/m²K
Light transmission	Crystal 85% - Opal 70%
Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. rays protection	Coextrusion
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

TegoPlus® corrugated sheet of polycarbonate “microalveolare” structure produced in different profiles for the construction of skylights, walls, transparent roofs also in combination with cover plates and insulated panels.
The versatility of this product allows you to create skylights, gutter-ridges or eave inter-layers.

LIGHT TRANSMISSION

TegoPlus® versatility in the roofing applications makes it ideal to optimize light diffusion within the building.

PROFILE RANGE

The profiles drawings of polycarbonate "microalveolare" structure sheets TegoPlus® hereby included are just examples of products available from stock. Please check the full list available online.
With the new production technology any kind of requested profile could be obtained.

UV PROTECTION

TegoPlus® sheets are produced with external protection against UV rays. This treatment gives the product a better guarantee of durability, mechanical properties and optical properties over time.

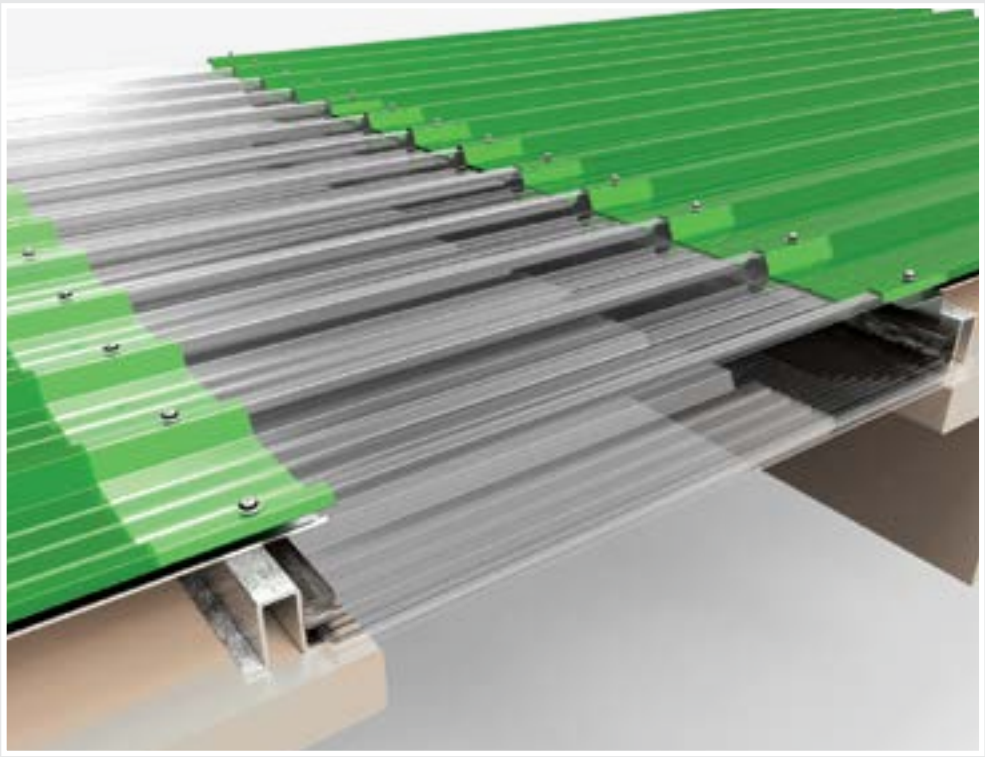
Note: TegoPlus® sheets could be supplied with heat-sealed ends.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Resistance to U.V. rays and to hail
- Longitudinal and transverse overlap
- Fire reaction EN 13501-1 EuroClass B-s1,d0

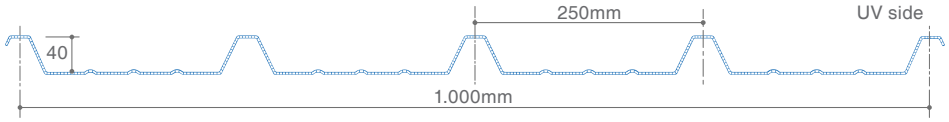
APPLICATIONS

- Greenhouses
- Covering and skylights

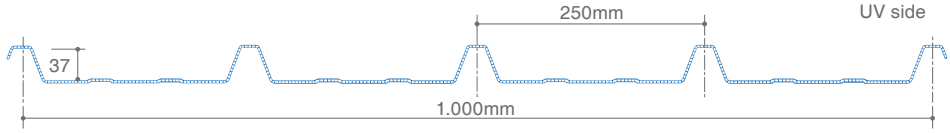


CORRUGATED PROFILES

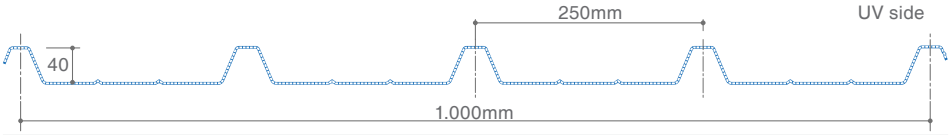
TegoPlus® 2682 compatible with **ISOLPACK DELTA 5***



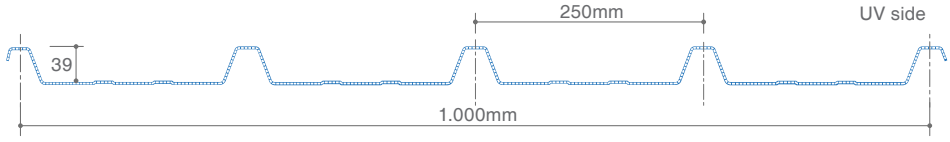
TegoPlus® 2683 compatible with **LATTONEDIL EURO 5***



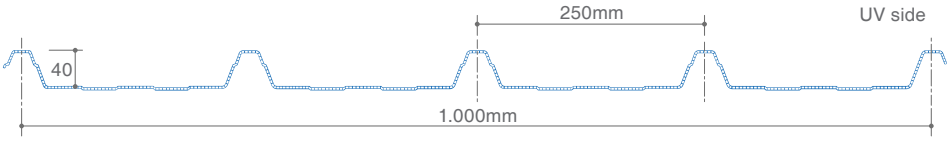
TegoPlus® 2685 compatible with **ISOPAN ISOCOP 5-1000***



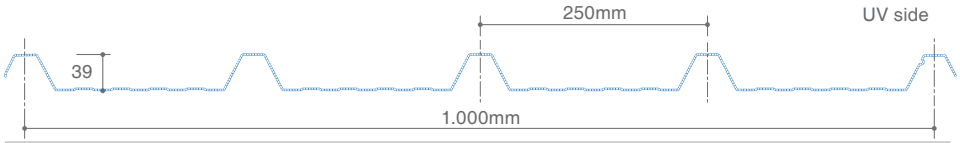
TegoPlus® 2688 compatible with **MARCEGAGLIA TD 5***



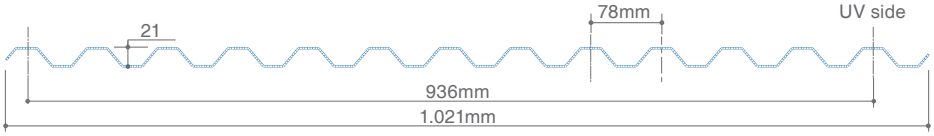
TegoPlus® 2687 compatible with **ITALPANNELLI PENTA 01***



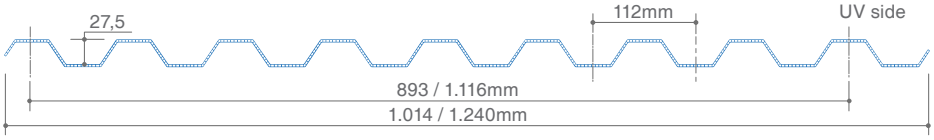
TegoPlus® 2731 compatible with **ALUTECH DACH***



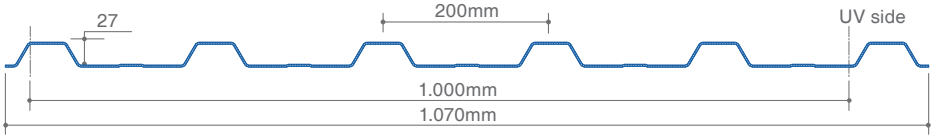
TegoPlus® 2689 compatible with **ALUBEL 21***



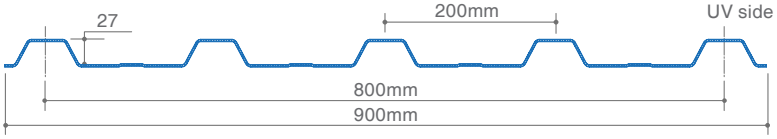
TegoPlus® 2681 - 2684 compatible with **ALUBEL 28***



TegoPlus® 2771



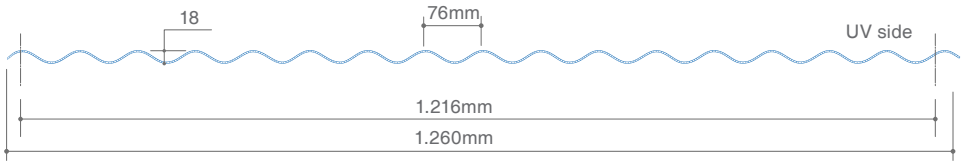
TegoPlus® 2690



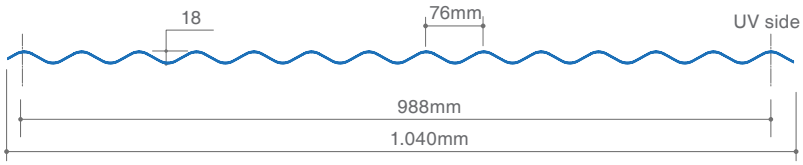
* This is a registered trademark not of dott.Gallina S.r.l. property

WAVE PROFILES

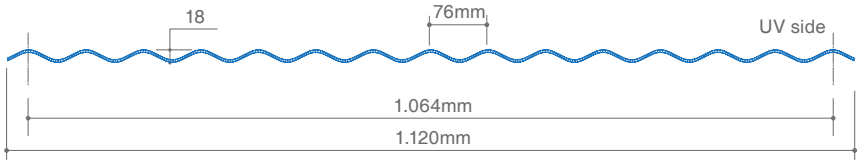
TegoPlus® 2686 compatible with **ONDA 76/18**



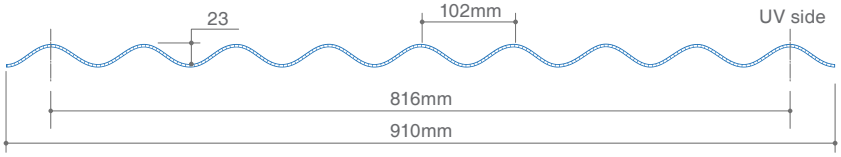
TegoPlus® 2695 compatible with **ONDA 76/18**



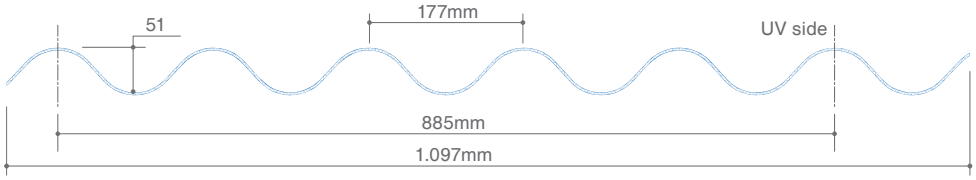
TegoPlus® 2790 - esp.5mm



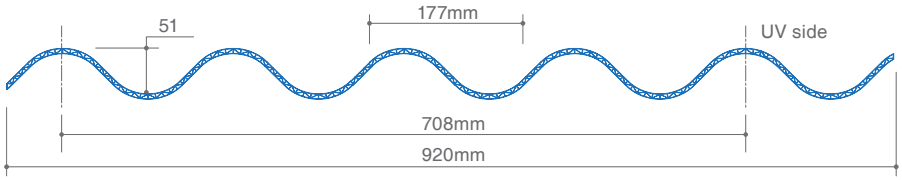
TegoPlus® 2680 compatible with **ONDA 102/25***



TegoPlus® 2495 compatible with **ONDA 177/51**



TegoPlus® 2498 compatible with **ONDA 177/51**



Note: Please refer to the TegoPlus® product page on the website www.gallina.it to view the updated range of profiles

info@gallina.it

Detail of overlapping components

TRANSVERSAL SKYLIGHT

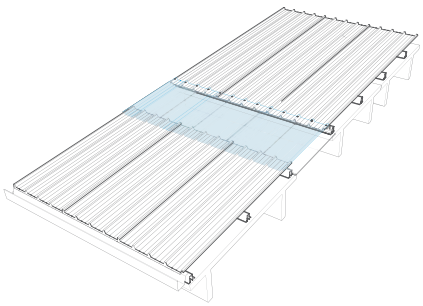
The different sections of TegoPlus® sheets compatible with most of the insulated panels and corrugated sheets on the market, make this product suitable for the realization of transverse inter-layer skylights.
During installation you must install the panels on the roof in reverse order to the direction of prevailing winds.

SKYLIGHT GUTTER RIDGE APPLICATION

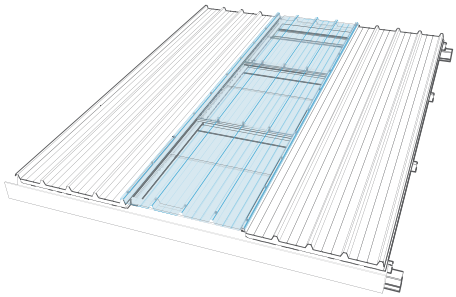
TegoPlus® sheets allow a perfect side overlapping with all roofing systems granting the realization of ridge-eave skylights.
To avoid cracks in correspondence to the fixing, due to thermal linear expansion, the maximum useful length of TegoPlus® sheets is recommended at 5,000mm.

ACCESSORIES

4432
Screw with gasket
6,3 x 80 mm



TRANSVERSAL SKYLIGHT
Implementation of transversal skylights coupled with monolithic panels



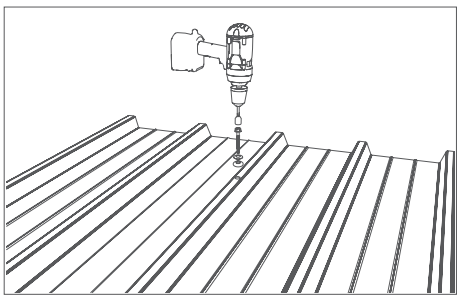
SKYLIGHT GUTTER RIDGE APPLICATION
Construction of ridge-eave skylights with added curtain on the inside

CHEMICAL RESISTANCE

If necessary for installation, use only neutral sealants and adhesives compatible with polycarbonate.
Avoid contact between TegoPlus® plates and fresh paint or other substances that are incompatible and could damage the sheets.
The use of sealants or adhesives not supplied by dott.Gallina requires the explicit approval of the same.

MOUNTING THE PANELS

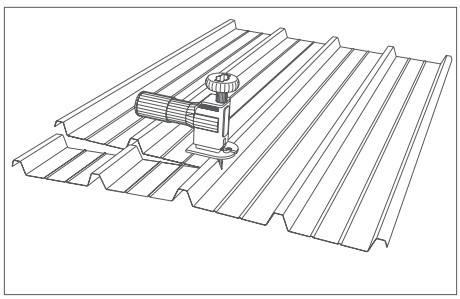
The fixing of the plates TegoPlus® must take place in correspondence of the structures of each high ridge, with screws 6,3 x 80 mm, fitted with sealing provided by dott.Gallina.
The use of other types of fasteners may alter the resistance of the sheets.
For the fastening a pre-drilling is advisable, made with a metal tip with a diameter greater than 3 mm to that of the screw.
The excessive tightening of the fasteners, preventing movement of the plates due to thermal expansion, may compromise the seal.



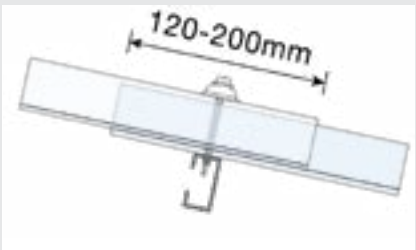
Drilling and fastening with screwdriver

SHEET CUTTING

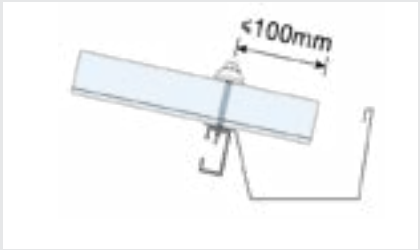
TegoPlus® sheets can be cut with a circular saw, small-toothed, at high speed of rotation, being careful to advance slowly. You can also use jig saws or shears. In any case, it is important to support the sheet in the vicinity of the point of cutting and to eliminate the dust generated by cutting.



Cutting sheets with jigsaw



ELEMENT OVERLAPPING
The minimum overlap of the TegoPlus® sheets in width should be 120mm



END PROTRUSION
At the end of the covering the sheets must not protrude more than 100mm above the gutter

3

MULTIWALL SHEETS

By concentrating on technological innovation and continuous research into the choice of raw materials and new methods of achieving UV protection, we have been able to develop a wide range of multiwall sheets, each with its own specific properties, to meet the demands of the various market sectors.

The multiwall structure combined with the properties of polycarbonate ensure superior thermal insulation and excellent impact strength.

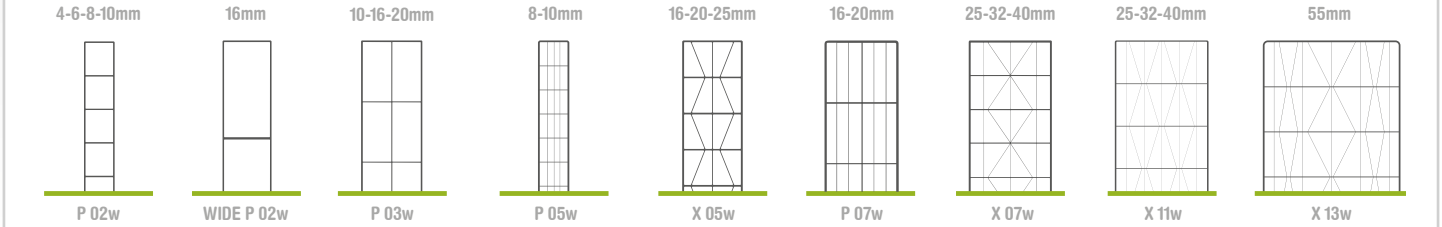
PoliCarb® sheets have UV protection on the side facing the exterior (both sides upon request) for good ageing resistance even after prolonged exposure to the sun and atmospheric agents.

PoliCarb® multiwall sheets are used for roofing, glazing, greenhouses, skylights, verandas, gazebos, shelters and false ceilings.

PoliCarb®

PoliCarb®

PROFILES



Multiwall U.V. protected polycarbonate sheets

CALEIDO · IR · UV TECH · ANTIGRAFFI · UV UV-MATT

SPECIAL TREATMENT

NOTE:
AG TREATMENT ONLY FOR WIDTH UNTIL 1.250MM

ADVANTAGES

- Light transmission
- Resistance to U.V. rays and to hail
- Energy saving
- Economical
- Versatile

APPLICATIONS

- Vertical windows
- Roofing
- Curved roofing
- False ceiling

CERTIFICATION

CCFAT COMMISSION CHARGÉE DE FORMULER LES AVIS TECHNIQUES

Document Technique d'Application
n°6/15-2251_V3 published 21/02/2019

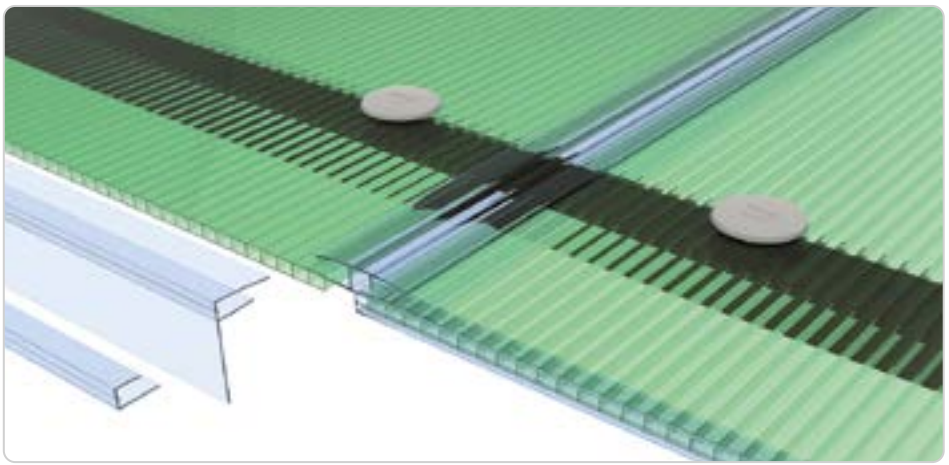
CE

produced in accordance with EN 16153

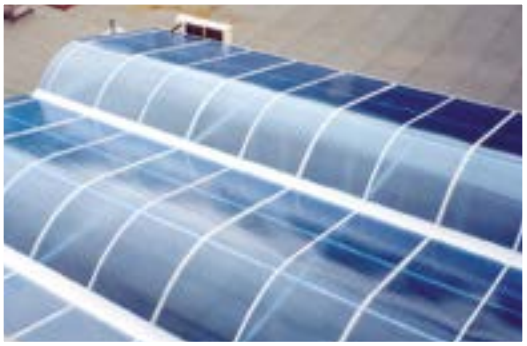
PRODUCTION STANDARDS

	structure thickness		weight	U value	width	lenght
	walls	mm	kg/m²	W/m²K	mm	mm
2 WALLS						
PoliCarb® 4 P 02w	2	4	0,80	3,9	2.100	6.000
PoliCarb® 6 P 02w	2	6	1,30	3,6	2.100	6.000
PoliCarb® 8 P 02w	2	8	1,50	3,3	2.100	6.000
PoliCarb® 10 P 02w	2	10	1,70	3,0	980-1.250-2.100	6.000
PoliCarb® 16 WIDE P 02w	2	16	3,70	2,5	980-1.250	6.000
3 WALLS						
PoliCarb® 10 P 03w	3	10	2,10	2,7	980-1.250-2.100	6.000
PoliCarb® 16 P 03w	3	16	2,70	2,3	980-1.250-2.100	6.000
PoliCarb® 20 P 03w	3	20	3,20	2,1	980-1.250-2.100	6.000
5 WALLS						
PoliCarb® 6 P 05w	5	6	1,40	3,1	2.100	6.000
PoliCarb® 8 P 05w	5	8	1,55	2,7	2.100	6.000
PoliCarb® 10 P 05w	5	10	1,75	2,4	2.100	6.000
PoliCarb® 16 X 05w	5	16	2,55	2,1	980-1.050-1.250-2.100-2.500	6.000
PoliCarb® 20 X 05w	5	20	3,10	1,8	980-1.050-1.250-2.100-2.500	6.000
PoliCarb® 25 X 05w	5	25	3,30	1,6	980-1.050-1.250-2.100-2.500	6.000
7 WALLS						
PoliCarb® 16 P 07w	7	16	2,60	1,8	980-1.050-1.250-2.100-2.500	6.000
PoliCarb® 20 P 07w	7	20	2,85	1,6	980-1.050-1.250-2.100-2.500	6.000
PoliCarb® 25 X 07w	7	25	3,50	1,4	1.250	6.000
PoliCarb® 32 X 07w	7	32	3,70	1,2	1.250	6.000
PoliCarb® 40 X 07w	7	40	3,90	1,1	1.250	6.000
11 WALLS						
PoliCarb® 25 X 11w	11	25	3,40	1,3	2.100	6.000
PoliCarb® 32 X 11w	11	32	3,70	1,1	2.100	6.000
PoliCarb® 40 X 11w	11	40	4,20	1,0	2.100	6.000
13 WALLS						
PoliCarb® 55 X 13w	13	55	5,00	0,79	1.200-1.250	6.000

P = parallel wall structure, X = cross-walled structure



CONTINUOUS ROOFING
Detail of roof with H-shaped connector and air cell end profiles



TECHNICAL FEATURES

Linear thermal expansion	0,065mm/m°C
Temperature range	-40°C +120 °C
U.V. protection	Coextrusion (both sides upon request)
Fire reaction EN 13501-1	EuroClass B-s1,d0

DESCRIPTION

The characteristic structure of the multi-wall sheets with air space inside guarantees good thermal insulation and excellent resistance to crash stress.
The external side of PoliCarb® is coated with U.V. protection (on request both sides) warranting resistance to aging due to atmospheric agents and UV rays.
PoliCarb® is used for roofing, windows, skylights, greenhouses, porches, gazebos, ceilings.

LIGHT TRANSMISSION

High-resistance pigments (opal, bronze and green) are added to the polycarbonate to achieve different light transmission values.
For values see the table on page 10.

SOLAR FACTOR

The solar factor is closely linked to the sheet structure.
It is the ratio, expressed as a percentage, between the total energy transmitted to the inside and total solar radiation.

THERMAL INSULATION

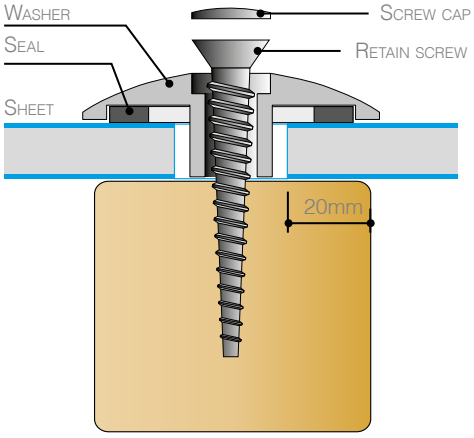
Heat loss is normally defined as thermal transmittance and referred to in physics as the “U-value”.
It is the rate of heat loss through a unitary surface per degree centigrade difference in temperature between the two sides and depends on the properties of the material of which the structure is made and the linear thermal transmittance conditions.

SELF-EXTINGUISHING

PoliCarb® sheets have EuroClass B-s1,d0 fire rating according to EN 13501-1.

LOCK WASHERS

The sheets must be fastened to the structure using specific washers with a seal to guarantee a watertight finish and allow the material to expand due to changes in temperature.



THERMOWELDING

PoliCarb® sheets can be supplied welded at their ends, (up to 10mm th.) ensuring throughout time the cleanliness on the inside of the cells and greater transparency.

CLOSING TAPES

Adhesive steel tapes of varying heights for the closing of the cells are available:
- H. 19mm for sheets th. 4,5-6mm.
- H. 25mm for sheets th. 8-10mm.
- H. 38mm for sheets th. 16mm.
- H. 60mm for sheets th. 25-32-40mm.

LOAD RESISTANCE (daN/m²)
FIXED PLANE SHEET ON 4 SIDES

PoliCarb® 6 P 02w - 6mm

Lenght (m)	Width (m)			
	0.70	**0.60**	**0.50**	**0.40**
1.00	50	80	105	120
1.50	45	75	105	110
2.00	40	70	100	110
2.50	35	65	90	100
3.00	35	65	90	100

PoliCarb® 10 P 05w - 10mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.70**	**0.50**
1.00	60	70	85	100	190
1.50	40	65	75	95	185
2.00	30	60	70	80	180
2.50	25	60	65	75	170
3.00	25	55	60	75	175

PoliCarb® 16 P 03w - 16mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	105	135	150	175	230
1.50	70	125	140	150	220
2.00	70	120	135	140	150
2.50	70	110	110	135	145
3.00	60	90	100	130	140

PoliCarb® 20 X 05w - 20mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	140	155	180	230	280
1.50	120	140	170	200	255
2.00	100	130	140	160	205
2.50	80	120	130	140	165
3.00	80	100	100	130	160

PoliCarb® 16 P 07w - 16mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	170	190	210	240	270
1.50	130	180	200	220	250
2.00	105	125	130	150	190
2.50	75	110	125	130	155
3.00	75	90	100	110	150

PoliCarb® 25 X 07w - 25mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	180	240	315	385	390
2.00	170	200	240	280	275
2.50	145	170	195	215	240
3.00	140	165	190	210	235

PoliCarb® 40 X 07w - 40mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	240	255	330	400	450
2.00	180	215	265	315	355
2.50	155	190	230	265	280
3.00	150	185	215	245	255

PoliCarb® 32 X 11w - 32mm

Lenght (m)	Width (m)			
	1.20	**1.10**	**1.00**	**0.90**
1.50	150	185	200	225
2.00	120	140	150	175
2.50	100	115	120	145
3.00	95	100	110	135

PoliCarb® 55 X 13w - 55mm

Lenght (m)	Width (m)		
	1.20	**1.10**	**1.00**
1.50	225	220	250
2.00	200	205	210
2.50	155	170	180
3.00	150	160	170

PoliCarb® 10 P 02w - 10mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.80**	**0.70**	**0.50**
1.00	70	80	100	110	170
1.50	50	75	90	100	165
2.00	40	70	85	90	165
2.50	30	70	75	85	160
3.00	30	65	70	80	140

PoliCarb® 16 WIDE P 02w - 16mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	175	205	220	240	275
1.50	130	185	205	220	265
2.00	110	130	145	155	200
2.50	75	110	110	120	160
3.00	75	95	95	110	155

PoliCarb® 16 X 05w - 16mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	120	140	160	200	250
1.50	100	130	150	190	230
2.00	90	120	130	140	180
2.50	70	100	100	110	145
3.00	70	85	85	100	140

PoliCarb® 25 X 05w - 25mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	200	220	285	350	350
1.50	180	210	275	340	350
2.00	130	170	175	180	210
2.50	100	140	145	150	165
3.00	90	130	135	140	160

PoliCarb® 20 P 07w - 20mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.00	190	210	230	270	300
1.50	160	200	220	240	290
2.00	120	150	150	170	205
2.50	90	130	140	145	165
3.00	80	110	110	135	160

PoliCarb® 32 X 07w - 32mm

Lenght (m)	Width (m)				
	1.20	**1.00**	**0.90**	**0.80**	**0.60**
1.50	220	250	325	395	430
2.00	170	210	260	305	330
2.50	145	190	225	255	270
3.00	140	180	210	235	250

PoliCarb® 25 X 11w - 25mm

Lenght (m)	Width (m)			
	1.20	**1.10**	**1.00**	**0.90**
1.50	145	180	195	210
2.00	105	120	130	150
2.50	75	85	95	110
3.00	70	75	80	100

PoliCarb® 40 X 11w - 40mm

Lenght (m)	Width (m)		
	1.20	**1.10**	**1.00**
1.50	175	190	205
2.00	140	155	175
2.50	110	140	160
3.00	100	135	155

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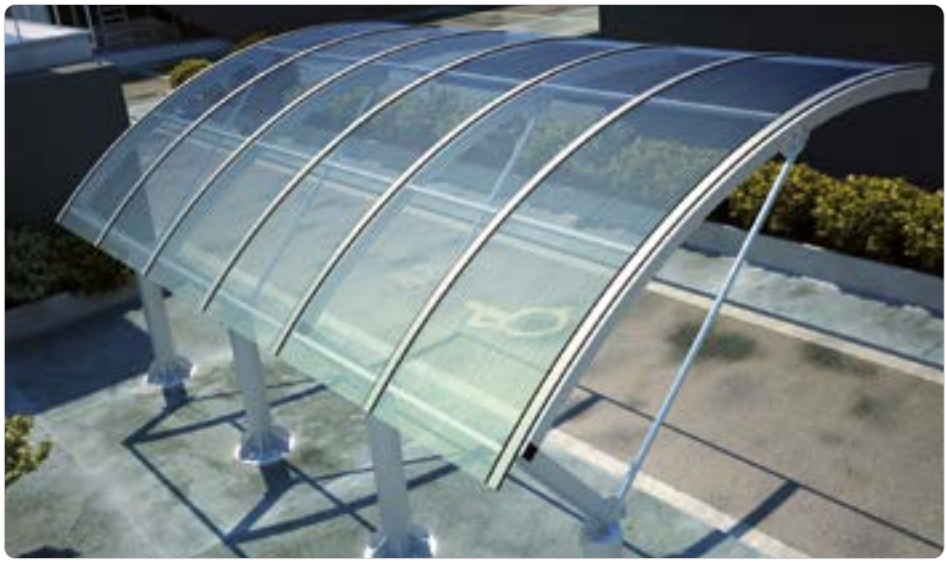
PLANES SHEETS APPLICATION

The choice of sheet thickness is based on the requested values of snow/wind loads and on sheet dimensions. The indicated values in the following charts are in pressure and in depression.

COLD BENDED SHEET APPLICATION

In particular PoliCarb® is used to build integral are structures green house tunnel type since its cell structure increases the rigidity of the sheet longitudinally bent at its ribs.



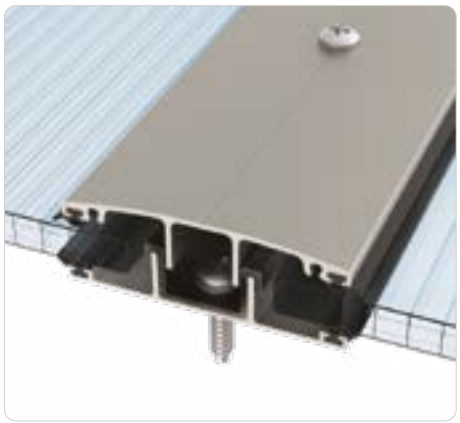
MINIMUM RADIUS OF CURVATURE

Sheets th.	4P02w	6P02w	8P02w	10P02w	10P05w	16P03w	16X05w	16P07w	20X05w	20P07w	Spessore > 20mm
RADIUS (mm)	750	1.000	1.500	1.750	2.000	2.800	3.500	2.800	4.000	3.400	DO NOT BEND

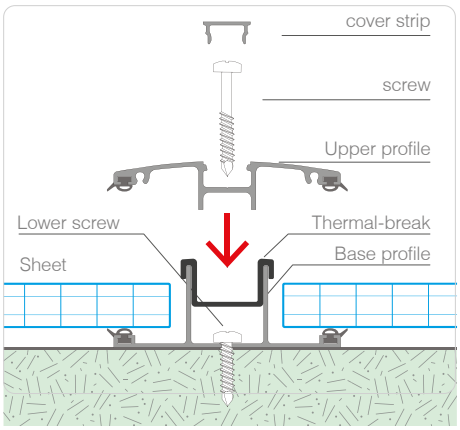
LOAD CAPACITY (daN/m²) FIXED SHEETS COLD BENDED ON 4 SIDES

	Sheet thickness (mm)																								
	6P	8P	10P	16P	16X	20P	20X	6P	8P	10P	16P	16X	20P	20X	6P	8P	10P	16P	16X	20P	20X	6P	8P	10P	16P	16X	20P	20X
Radius (m)	Purlins spacing (m)																											
1.00	1.80							1.50							1.25							1.07						
1.20	1.50							1.25							1.00							0.90						
1.40	1.20	1.90						0.96	1.70						0.83	1.30						0.72	1.10					
1.60	1.00	1.65						0.82	1.27						0.68	1.06						0.60	0.92					
1.80	0.80	1.23	1.68					0.64	1.00	1.38					0.58	0.84	1.18						0.73	1.02				
2.00	0.75	1.15	1.60					0.60	0.92	1.28					0.55	0.78	1.08						0.68	0.93				
2.20	0.67	0.98	1.35						0.82	1.12						0.70	0.95							0.82				
2.40	0.60	0.88	1.23						0.70	1.00							0.84							0.74				
2.60		0.75	1.07							0.90																		
2.80			0.93	1.92							1.58							1.33							1.15			
3.00			0.88	1.78							1.45							1.21							1.06			
3.20			0.83	1.62							1.32							1.11							0.97			
3.40			0.75	1.48		1.70					1.24		1.45					1.07		1.20					0.95		1.10	
3.60				1.40	1.60	1.65					1.20	1.25	1.41					1.04	1.15	1.17					0.92	1.00	1.08	
3.80				1.30	1.50	1.55					1.15	1.20	1.35					1.00	1.12	1.15					0.90	1.00	1.07	
4.00				1.20	1.38	1.43	1.60				1.10	1.15	1.26	1.35					1.05	1.10	1.23					0.97	1.03	1.15
4.20				1.20	1.35	1.40	1.58					1.10	1.22	1.28					1.00	1.05	1.17					0.95	1.00	1.13
4.40				1.12	1.28	1.35	1.50					1.07	1.17	1.25					0.98	1.00	1.15					0.95	0.97	1.11
4.60					1.20	1.28	1.40					1.05	1.14	1.23					0.98	1.00	1.15					0.93	0.96	1.08
4.80					1.15	1.25	1.35					1.00	1.11	1.17					0.95	0.98	1.11					0.90	0.94	1.05
5.00						1.20	1.30						1.07	1.11						0.95	1.00						0.90	0.95
5.20						1.15	1.25						1.02	1.07						0.90	0.95						0.85	0.90
Load	80 daN/m²							100 daN/m²							120 daN/m²							140 daN/m²						

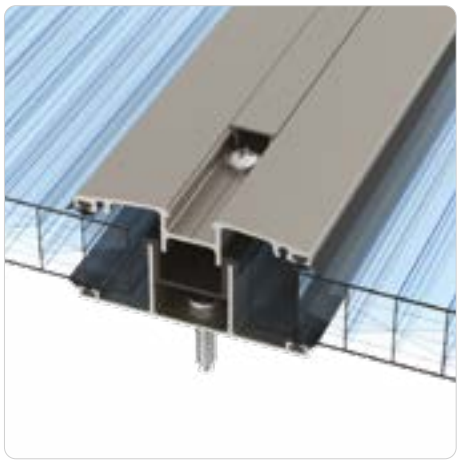
ALUMINIUM PROFILES FOR MULTIWALL SHEETS



COD. 4893+4896+4890
Junction solution to connect sheets each other, where fixing screws are visible, useable for multiwall sheets thickness from 2 to 12mm.



MOUNTING DESIGN
Sequenza di fissaggio lastre alveolari con profili in alluminio e vite nascosta



COD. 4894+4891+4892
Aesthetic junction solution to connect sheets each other, where fixing screws are hidden, useable for multiwall sheets thickness from 16 to 25mm.

WIDE RANGE OF APPLICATION OPTIONS

PoliCarb® multiwall sheets are widely used in the window/roofing system thanks to their lightness and insulation characteristics. Besides others application possibilities can be found in fitting -exhibit-display field in order to realize internal partitions, backlit walls, decorative furniture, advertising display and visual communication elements thanks to the possibility to be printed by direct printing. This infinite list of installation fields is due to the wide range of thicknesses and shapes in which sheets can be provided. The ease of customizing/manufacturing the product combined with a complete range of accessories, make it possible to use plates for countless applications in a wide range of industries.

COD. 4895+4891+4892
Aesthetic junction solution to connect sheets each other, where fixing screws are hidden, useable for multiwall sheets thickness from 32 to 40 mm.

EXHIBIT & FITTING
Ampia versatilità di utilizzo delle lastre alveolari nel settore dell'allestimento e per la stampa diretta

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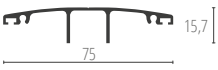
ACCESSORIES

PoliCarb® multiwall sheets can be fitted with a complete set of accessories for easy installation. To achieve a proper installation it is advisable to plug the panel edges with a special polycarbonate profile or with micro-perforated aluminium adhesive tapes, allowing ventilation into the air-channels and avoiding accumulation of dirt/bacteria.

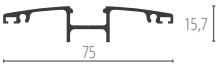
TRANSLUCENT ROOFING
Multiwall sheets used for outdoor verandas, canopies, shelters

METAL PROFILES

cod. 4890
Upper Aluminium profile with visible fixing screws

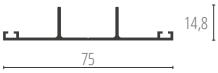


cod. 4891
Upper Aluminium profile for hidden screws

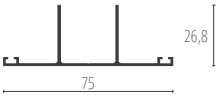


cod. 4892
Aluminium covering strip to hide screws

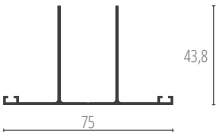
cod. 4893
Alu Base H profile for sheet th.2-12 mm



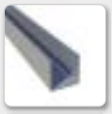
cod. 4894
Alu Base H profile for sheet th.16-20-25 mm



cod. 4895
Alu Base H profile for sheet th.32-40 mm



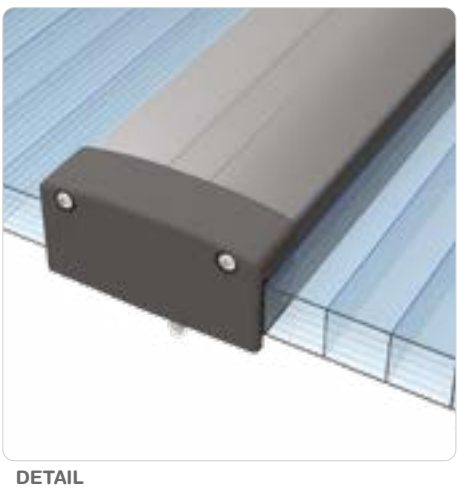
4077 th.4-6mm
4076 th.8-10mm
4087 th.16mm
4761 th.25mm
4762 th.32mm
Washer with gasket



4285 th.10mm
4286 th.16mm
"U" aluminium profile

4898
PC closing cap for Alu H profiles

COD. 4898
Positioning of PC closing cap to block and protect the edge-end of H Alu connecting profiles



DETAIL
cod.4898- Grey PC closing cap for Alu H profiles fixed with face screws

ACCESSORIES

4890
Upper Aluminium profile with visible fixing screws

4891 (+4892)
Upper Aluminium profile for hidden screws

4892 (+4891)
Aluminium covering strip to hide screws

4893
Alu Base H profile for sheet th.2÷12 mm

4894
Alu Base H profile for sheet th.16-20-25 mm

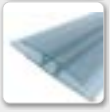
4895
Alu Base H profile for sheet th.32÷40 mm

2761
Thermal-break inner spacer for Alu H profiles

2760
Hollow rubber seal for H upper profile

2191 th.8-10mm
2192 th.16mm
Profiles "R" U.V. protected

2193 th.8-10mm
2194 th.16mm
Profiles "F" U.V. protected



1162 th.6mm
1298 th.8mm
1164 th.10mm
1165 th.16mm
1300 th.20mm
Profiles "H" U.V. protected

1158 th.6mm
1296 th.8mm
1160 th.10mm
1161 th.16mm
2184 th.20mm
2260 th.32mm
Profiles "U" U.V. protected

4970 th.8mm
4971 th.10mm
4973 th.16mm
4974 th.20mm
4975 th.25mm
4976 th.32mm
4977 th.40mm
Alu Obturating strip drip-free
Obturador Aluminio

4

SOLID SHEETS

The solid polycarbonate sheets offer a combination of unsurpassed features: resilience, transparency, lightness. As clear as glass weigh half as much and are 250 times more impact resistant. They have also better thermal and acoustic insulation properties.

For this reason they have a high versatility and can be worked either hot or cold, thus becoming eligible for all interventions in the Construction sector and Industry.

ADVANTAGES OF SOLID SHEETS:

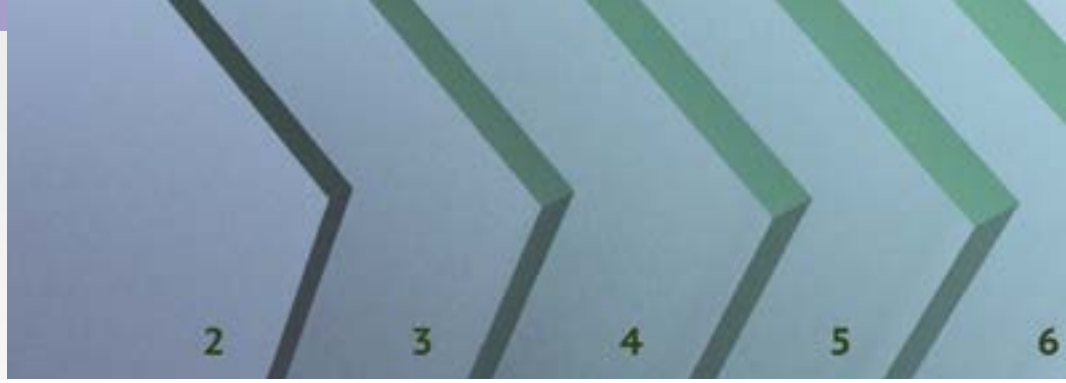
- trasparency
- extreme impact strength
- good fire reating

PoliComp®

Scudo® PRO

PoliComp®

← 2.500mm →



Polycarbonate solid sheets with U.V. protection on both sides

DESCRIPTION

The development of extrusion technology have allowed the construction of a plant unique in Europe for the production of solid polycarbonate sheets with width of 2,500 mm of various thicknesses and colors.

The polycarbonate product range is divided into solid PoliComp® sheets, with UV protection on both sides. Scudo®Pro sheets, no UV protected ideal for industrial applications.

PRODUCTION STANDARDS

Thickness (mm)	2	3	4	5	6	8	10	12	15
Weight (kg/m²)	2,4	3,6	4,8	6,0	7,2	9,6	12,0	14,4	18,0
Width (mm)	2.050 - 2.500								
Lenght (mm)	6.100								

CALEIDO IR UV TECH ANTIGRAFF UV UV-MATT

SPECIAL TREATMENT

ADVANTAGES

- Only plant that produces up to 2.500 mm width
- Light transmission
- Resistance to U.V. rays and to hail
- Impact strength
- Easy to process

APPLICATIONS

- Vertical windows
- Roofing
- Curved roofing
- False ceiling

produced in accordance with EN 16240

SAFETY

Scudo®Pro sheets are used in safety glazing applications, for machine tool guards.
PoliComp® sheets are used instead for build roof, vertical windows and advertising signs.

LIGHTNESS

Compared to normal glass structures, PoliComp® and Scudo®Pro sheets considerably reduce the weight of the structures.
A solid polycarbonate sheet weighs 50% less than a sheet of glass of the same thickness.

LIGHT TRANSMISSION

PoliComp® sheets have good light transmission properties and are also available in bronze and opal.

ENERGY SAVING

PoliComp® sheets provide excellent thermal insulation, an important factor in reducing fuel consumption for heating buildings.

DURABILITY

PoliComp® sheets are guaranteed for durability. (see terms of warranty)

COEXTRUSION

A layer of high-performing UV absorber is coextruded onto both sides of PoliComp® sheets. This filters the light and protects the polymer against the effects of ageing, ensuring excellent impact strength even after prolonged exposure to sunlight.

UV PROTECTION ON TWO SIDES

PoliComp® sheets have UV protection on both sides.

SELF-EXTINGUISHING

The solid polycarbonate sheets have Class1 type approval in thickness from 8mm to 12mm, and meet the EuroClass B-s2,d0 fire rating in accordance with the European legislation EN 13501-1 for thickness from 2mm to 6mm.

PHYSICAL PROPERTIES

	Value	Unit	Test metod
Density	1.200	kg/m^3	ISO 1183
Moisture absorption 23°C	0,15	%	ISO 62-4
Refractive index 20°C	1.586	-	ISO 489

MECHANICAL PROPERTIES

	Value	Unit	Test metod
Resistance to tensile stress	>60	MPa	ISO 527-2
Elongation at yield	6	%	ISO 527-2
Elongation at break	>70	%	ISO 527-2
Elastic modulus	2.300	MPa	ISO 527-2
Limiting flexural stress	ca.90	MPa	ISO 178
Impact strength (Charpy, unnotched)	no break	kJ/m^2	ISO 179
Impact strength (Charpy, notched)	ca.11	kJ/m^2	ISO 179

THERMAL PROPERTIES

	Value	Unit	Test metod
Vicat softening temperature	146-151	°C	ISO 306
Thermal conductivity	0,2	W/m°C	ISO 8302
Linear thermal expansion	0,065	mm/m°C	ISO 11359-2

ELECTRICAL PROPERTIES

	Value	Unit	Test metod
Dielectric strength	35	kV/mm	IEC 60243-1
Volume resistivity	1E14	Ohm/m	IEC 60093
Surface resistivity	1E16	Ohm	IEC 60093

LIGHT TRANSMISSION (%)

Thickness (mm)	2	3	4	5	6	8	10	12	15
Color									
transparent	91	90	90	89	88	86	83	80	78
bronze	70	60	51	43	41	33	29	23	15
light blue	-	62	57	52	47	42	-	-	-
opal	60	53	48	42	38	30	22	16	11
green	83	79	75	71	67	59	51	43	-

THERMAL TRANSMITTANCE U (W/m^{2}K)

Thickness (mm)	2	3	4	5	6	8	10	12	15
PoliComp®	5,60	5,40	5,30	5,10	5,00	4,80	4,50	4,30	4,10
Glass	-	5,87	5,82	5,80	5,77	5,71	-	-	-

ACOUSTIC INSULATION (R_w) (dB)

Thickness (mm)	2	3	4	5	6	8	10	12	15
Value	25	26	27	28	29	31	33	34	37

WEIGHT (kg/m^2)

Thickness (mm)	2	3	4	5	6	8	10	12	15
PoliComp®	2,4	3,6	4,8	6,0	7,2	9,6	12,0	14,4	18,0
Glass	5	7,5	10	12	15	20	25	30	-

The solid polycarbonate sheets in the extensive PoliComp® range offer extreme transparency.
They are ideal for applications that require superior thermal and sound insulation combined with a lightweight structure with good impact strength.
PoliComp® sheets are as clear as glass, weigh half as much and are 250 times more impact resistant.

APPLICATION OF FLAT SHEETS

Solid polycarbonate sheets can be installed in most PVC, wood, steel and aluminium structures and frames.

The frame must hold the sheet in place while allowing it to expand. The choice of sheet thickness depends on the load value required. According to the size of the sheet, from table A, the effective area and also the thickness will be calculated.

Table B can be used to calculate the thickness of the sheet to be used according to the size of the sheet (AREA) and the required load value.

The values shown in table B (positive and negative loads) have been calculated for sheets fixed on four sides, with a maximum bend value (rise) of 50mm.

SHEET SIZE

Sheet width (m)

Sheet length (m)	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
0.25	A1	A1	A1	A1	A1	A1	A1	A1
0.50	A1	A2	A3	A4	A4	A4	A4	A4
0.75	A1	A3	A5	A6	A7	A7	A7	A7
1.00	A1	A4	A6	A8	A9	A9	A10	A10
1.25	A1	A4	A7	A9	A10	A11	A12	A13
1.50	A1	A4	A7	A9	A11	A13	A14	A15
1.75	A1	A4	A7	A10	A12	A14	A16	A17
2.00	A1	A4	A7	A10	A13	A15	A17	A18
2.25	A1	A4	A7	A10	A13	A16	A18	A19
2.50	A1	A4	A7	A10	A14	A16	A19	
2.75	A1	A4	A7	A11	A14	A16	A19	
3.00	A1	A4	A7	A11	A14	A17	A19	
3.25	A1	A4	A7	A11	A14	A17		
3.50	A1	A4	A7	A11	A14	A17		
3.75	A1	A4	A7	A11	A14	A17		
4.00	A1	A4	A7	A11	A14	A17		
4.25	A1	A4	A7	A11	A14	A17		
4.50	A1	A4	A7	A11	A14	A17		
4.75	A1	A4	A7	A11	A14	A17		
5.00	A1	A4	A7	A11	A14	A17		

TABLE A

CHOICE OF THICKNESS

Load (daN/m²)

AREA	60	80	100	120	140
A1	3	3	3	3	3
A2	3	3	4	4	4
A3	4	4	4	4	5
A4	4	4	5	5	6
A5	5	5	5	5	6
A6	5	6	6	6	8
A7	6	6	8	8	8
A8	6	6	8	8	8
A9	8	8	8	8	10
A10	8	8	10	10	10
A11	10	10	10	10	12
A12	10	10	10	12	12
A13	10	10	10	12	
A14	10	12	12		
A15	10	12	12		
A16	10	12	12		
A17	12	12			
A18	12	12			
A19	12				

TABLE B

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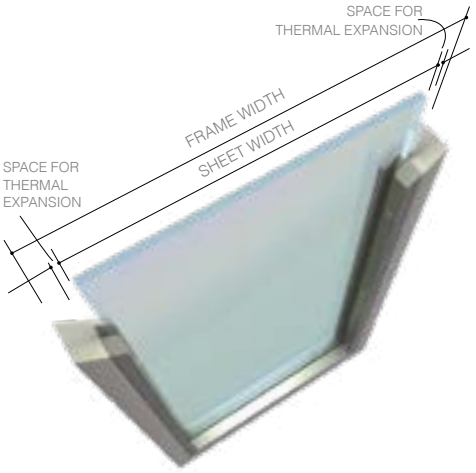
INSTALLATION GUIDELINES

When cutting sheets to allow for thermal expansion special care must be taken to avoid applying stress to the material.
Tolerance must be provided both widthwise and lengthwise.
The table at the side shows the sheet cutting values, depending on the size of the frame, in order to allow for thermal expansion.
The edge fitting must be deep enough to allow the material to expand and also to prevent the sheet from escaping from the frame.

Frame (mm)	Sheet cut (mm)
300 - 1.000	3
1.000 - 1.300	4
1.300 - 1.700	5
1.700 - 2.000	6
2.000 - 2.300	7
2.300 - 2.700	8
2.700 - 3.000	9

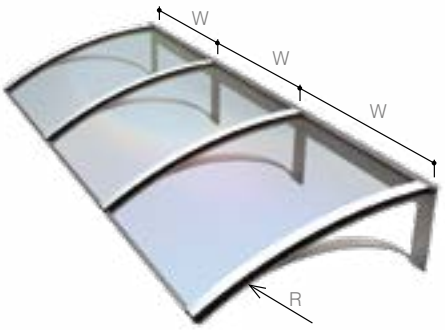


APPLICATION OF COLD-CURVED SHEETS

PoliComp® is ideal for building integral arch or tunnel structures.
The minimum bend radius is 150 times the thickness of the sheet.

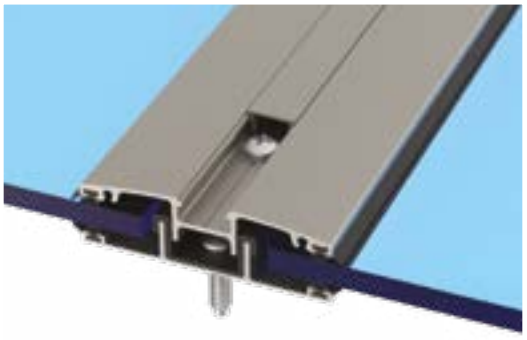
Example:
Sheet thickness: 3mm
Min. radius = 3 x150= 450mm

The choice of sheet thickness depends on the bend radius R but also on the width of the sheet W. The length L must always be greater than the width W.



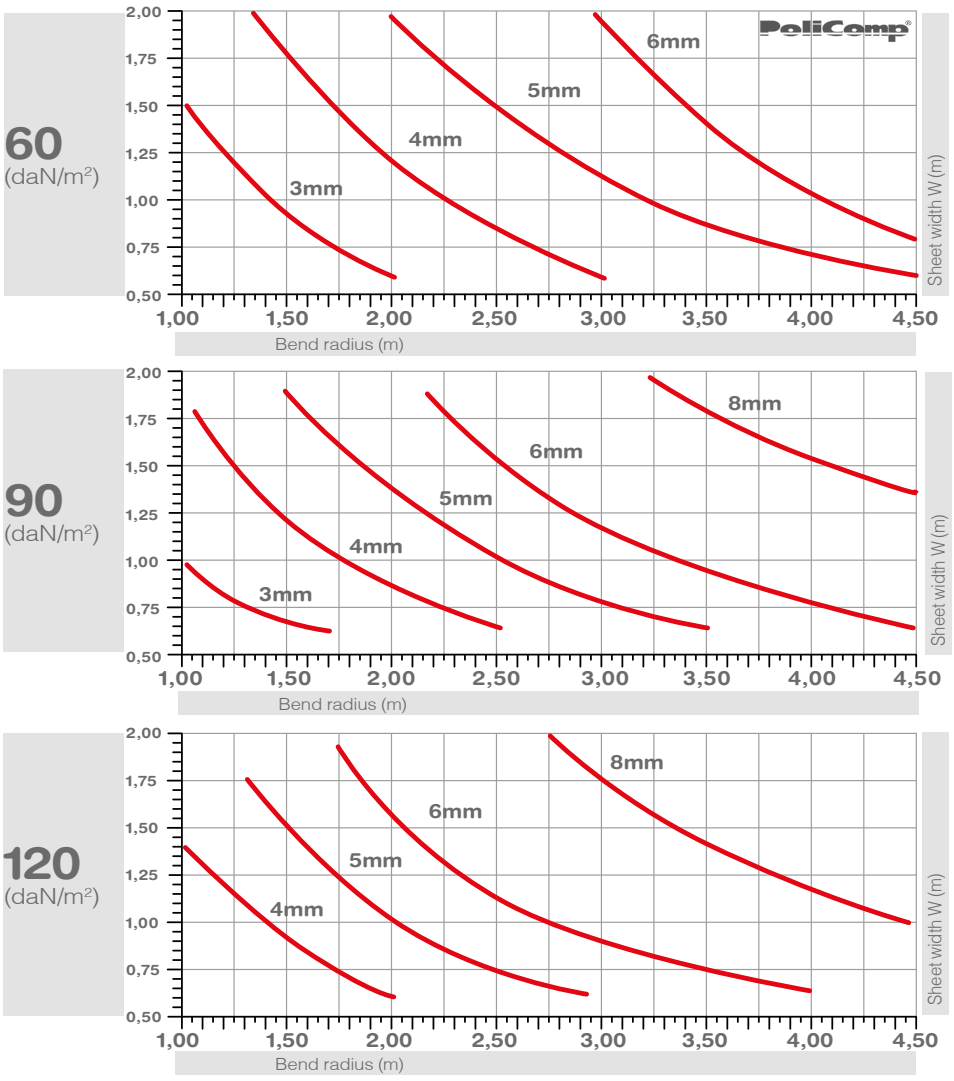
MINIMUM BEND RADIUS

Thickness (mm)	2	3	4	5	6	8	10	12
Radius (mm)	300	450	600	750	900	1.200	1.500	1.700



LOAD RESISTANCE

The graphs indicate the appropriate sheet thickness, for different bend radii, under different load conditions.
These values have been calculated with sheets fixed on three sides.



ACCESSORIES

4890
Upper Aluminium profile with visible fixing screws

4892 (+4891)
Aluminium covering strip to hide screws

2760
Hollow rubber seal for H upper profile

4891 (+4892)
Upper Aluminium profile for hidden screws

2761
Thermal-break inner spacer for Alu H profiles

4898
PC closing cap for Alu H profiles

4893
Alu Base H profile for sheet th.2-12 mm

info@gallina.it

Scudo® PRO

MATERIAL PROCESSING

Polycarbonate solid sheets WITHOUT UV PROTECTION

SCUDO THIN
TH. 0,75-1,00mm

CUTTING

PoliComp® and Scudo®Pro sheets can be cold-formed mechanically using standard high-speed tools to perform cutting, bending and drilling.

Notches, which undermine the mechanical properties of the polycarbonate, are not recommended.

	Circular saw	Belt saw	Milling machine
Rake angle	20°- 30°	20°- 30°	20°- 30°
Angle of inclination	15°	0,5°	0°- 5°
Cutting speed (m/min)	1.800 - 2.400	600 - 1.000	100 - 500
Feed speed (m/min)	19 - 25	20 - 25	0,1 - 0,5
Distance between teeth (mm)	2 - 5	1,5 - 2,5	-

DRILLING

PoliComp® and Scudo®Pro sheets can be drilled using standard drilling machines that meet the following specifications:

Parameter	Value
Rake angle α	5°-8°
Angle of tip φ	90°-130°
Angle of blade β	approx. 30°
Angle of inclination γ	3°-5°
Cutting speed	10-60 m/min
Tip speed	0,1-0,5 mm/rev

Drill sheets as follows to avoid any damage during machining:
Drill the hole at a distance from the edge of the sheet equal to at least 1.5 times the diameter of the hole.
Do not use cutting oil.
Use threading if there is no other alternative. Sheets could break after drilling.

THERMOFORMING AND HOT-CURVING

Remove the protective film before thermoforming and pre-heat the material to 120°C to eliminate any moisture that has been absorbed.
The use of an air circulating oven with temperature control is recommended.
The air must circulate between the sheets.
Pre-heating times can be reduced by one third by storing the sheets in a dry place. Since the dry sheets start to re-absorb moisture as soon as they cool down to below 100°C, thermoforming must be performed immediately after drying.
Hot curving must be performed at a temperature of between 155°C and 165°C.

GLUING SHEETS

Neutral and compatible with polycarbonate adhesives should be used to glue the solid polycarbonate sheets.

CLEANING OF SURFACES

We recommend the use of warm water and a soft cloth to clean PoliComp® and Scudo®Pro sheets.

ADVANTAGES

- Easy and low-cost installation
- Light transmission
- Heat insulation
- Self-supporting

APPLICATIONS

- Room partitions
- False ceilings
- Machinery protection guards

produced in accordance with EN 16240

GENERAL TERMS AND CONDITIONS OF SALE

1) ORDERS:
Orders are only valid if they refer to the price-list currently in force and are signed by way of the buyer's full acceptance of these terms and conditions of sale. The order is binding on the buyer and may only be cancelled with the written consent of Dott. Gallina S.r.l., subject to repayment of all costs claimed by the latter. The order becomes effective upon receipt of the confirmation of order signed by the buyer. All measurements in the order are taken as having been checked and verified by the buyer and are the responsibility thereof. Likewise, the buyer is responsible for controlling and verifying the qualities and purchase prices agreed upon with the seller.

2) DELIVERY:
The delivery date specified in the order and in the confirmation of order is indicative and thus not binding on Dott. Gallina S.r.l. Delays in delivery shall not give rise to any refund, compensation for damages or cancellation of the order. The buyer may not refuse to accept the goods until 45 days after the scheduled delivery date. After that date the buyer may cancel the order or insist upon delivery; in either case, notwithstanding the provisions of the law, the parties expressly waive any claims for compensation. Dott. Gallina S.r.l. shall not be answerable for delays due to unforeseeable circumstances, including accidents, machine breakdowns, strikes, lack of deliveries of raw materials, etc.

3) PACKAGING:
Unless otherwise expressly requested all materials shall be supplied in white polyethylene packaging and closed at the top. Where possible, but not necessarily, materials shall be strapped to pallets.

4) TRANSPORTATION:
Goods are transported at the buyer's risk, even though they are delivered free to destination and unloaded from the vehicle. Any complaints in connection with differences in the goods supplied, shortage of packages or damage must be reported to the carrier immediately at the time of delivery and clearly indicated in the transport document. Any complaints, including those in connection with orders made through an intermediary, must be made in writing directly to Dott. Gallina S.r.l. and sent by means of registered post to reach the latter within 8 days from the date of delivery.

5) WARRANTY:
(See terms and conditions of warranty). The warranty period starts from the date of invoice and the warranty is valid in accordance with the terms set forth in the certificates issued by the company. Dott. Gallina S.r.l. reserves the right to make any changes it deems necessary and without prior notice and shall not be liable for any direct or indirect loss or damage to persons or property arising in connection with the use of the product.

6) TOLERANCE:
Unless otherwise specified, sizes may vary by ± 2 mm/m with a minimum of ± 5 mm. Under no circumstances are product weights binding. Weights are provided to assist customers in their choice of product.

7) PAYMENT:
Dott. Gallina S.r.l. shall only accept new orders if all previous materials supplied have been paid for. Payments shall be made according to the agreed terms of payment and shall not be suspended or postponed for any reason or in connection with any claim. In the event of delayed payment, as stipulated by Legislative Decree No 192/2012, the interest will be charged and calculated on the basis of BCE reference rate plus 8 percentage points, from the scheduled payment date up until the actual date on which payment is actually made, with an additional amount of 40 euros for damages. Only under exceptional circumstances may the buyer request to postpone the contractual and confirmed delivery date, in which case the buyer shall agree to the goods being invoiced and to the relative payment falling due as from the date on which the goods become ready, in addition to sustaining all costs of handling and storage and any other related charges.

8) DISPUTES:
Any disputes arising in connection with these terms and conditions of sale shall be brought exclusively before the Court of Turin for settlement.

DISCLAIMER:
All the information contained in this document are reliable, non-binding for the producer and can be subject to change without notice.
For more information, refer to the installation manual or write to info@gallina.it or contact your local commercial adviror/dealer

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POLYCARBONATE SYSTEMS & SHEETS