



Ceiling Solutions for Education

Zentia is a trusted industry expert in creating education environments that empower architects, designers, and acousticians to implement solutions that don't just comply with regulations but also contribute to an enriching learning environment.

Who we are

Zentia is the UK's market leading manufacturer of complete ceiling solutions. Evolved from Armstrong Ceiling Solutions and with over 100 years of knowledge and experience. Zentia is the UK's only major ceiling manufacturer of mineral and soft fibre solutions.

At Zentia, we put our customers at the heart of everything we do, guided by our core company pillars.

// Reliability // UK Focus // Innovation // Partnership

Just as our customers always have, you can rely on Zentia whatever the challenge, whatever the project, whatever the deadline.



Creating a better learning environment – addressing the challenges

Zentia is a trusted industry expert in creating education environments that empower architects, designers, and acousticians to implement acoustic and design led solutions that don't just comply with regulations but also contribute to an enriching learning environment.

To improve learning environments for all, the acoustic challenges that hinder communication and focus should be considered. Poor acoustic design in classrooms and shared spaces leads to issues such as reverberation, noise leakage, and low speech clarity, creating strain for both students and teachers.

The four key considerations are:

- Speech Intelligibility
- Reducing Noise Distractions
- Enhancing Learning with Better Acoustics
- Visual Comfort

These considerations contribute to creating an efficient, supportive environment for both students and teachers across different learning and communal spaces.

Poor room acoustics can result in many students struggling to understand **25%** of words spoken.
Evans and Maxwell

Classroom design has **25%** impact, positive or negative, on students' learning.
Clever Classrooms

Higher levels of daylight or LRV achieve **7-18%** higher test scores.
Heschong Mahone Group

Understanding BB93: Acoustic Standards in Educational Buildings

Building Bulletin 93 (BB93) was introduced by the DfE to ensure that school acoustics support teaching and learning, improving both the intelligibility of speech and the overall well-being of students and staff.

BB93 specifies several important criteria for new and refurbished school buildings, covering:

- Ambient Noise Level
- Reverberation Time
- Sound Insulation

These criteria guide architects and builders in crafting spaces that meet the acoustic needs of a variety of educational settings.



Reverberation time

"If a classroom, has too much reverberation, it doesn't matter how well the teacher speaks or how much they project their voice – the clarity of speech is compromised, and the learning experience is impacted."

Adrian James – Acoustician



Ambient Noise Level

BB93 specifies that in classrooms the upper limit for indoor ambient noise levels in classrooms ranges from 30dB to 45dB depending on the use of the room, year groups and if it is new build or refurbished.



Sound Insulation

"BB93 sets a benchmark for sound insulation to ensure that students in one classroom are not disturbed by noise from adjacent rooms."

The Institute of Acoustics (IOA)



*Your problem isn't acoustics.
Your problem is what do you
want it to look like.*

James Boyd AMIOA
Architectural & Design Consultant

Our Expertise

We understand that acoustic management isn't just about reducing noise – it's about creating spaces where every student can engage and focus without distraction. Zentia's performance solutions are designed with this in mind, providing schools with reliable, high-performance solutions that seamlessly blend functionality with compliance and allow for creative aesthetic appeal.

These considerations contribute to creating an efficient, supportive environment for both students and teachers across different learning spaces.

Our expertise places Zentia at the forefront of the industry, working with key partners to create more effective spaces that reflect the latest in acoustic and design requirements.

Case Studies



Client: Bradford University
Architect: Stephen George & Partners



Client: Grimsby Institute
Architect: Farrell and Clark Architects



Client: Queen Elizabeth School
Contractor: Galliford Try



Client: Harton Academy
Architect: Ryder Architecture



Client: Balloch Campus, Scotland
Architect: Holmes Miller



Client: Canterbury Christ Church University
Architect: HMY Architecture





SEN Classroom

A Special Educational Needs (SEN) classroom requires specially tailored acoustic considerations to support students with various learning and sensory needs.

Our recommended solutions:

- Prestige hA+
- Oplia hA+

Both products are available in a range of sizes and edge details, providing Class A acoustic performance and with exceptionally good low frequency performance at 125Hz and 250Hz, without the need for additional products. Paired with Gridline 15/24 for a full 30 year warranty.

Pair with Zentia coloured ceiling systems to identify year or subject groups without compromising the acoustic performance.

A data led approach

As experts, we understand the dominant acoustic reverberation calculation used is the Sabine equation, which is great for more reverberant spaces, while for rooms that are less reverberant such as SEN classrooms, the Eyring equation might be best. Using these equations, we can calculate room acoustic performances aligned with BB93 guidelines. As such, we can offer this as a value-added service through our A&D Consultancy team.

Whatever your space, we understand your requirements

The following room scenarios have been based on several assumptions based on projects we have supported. For further information contact your local Architectural and Design Consultant.

	BB93 Performance standards for reverberation time Tmf seconds	
Room Type	New Build	Refurbished
Teaching space intended specifically for students with special hearing or communication needs	≤0.4 sec (average from 125Hz – 4kHz) and ≤0.6 sec in each OBCF	≤0.4 sec

Primary and Secondary School Classroom

These classrooms require carefully designed acoustics to support effective learning, clear communication, and overall comfort.



Our recommended solutions:

- Prestige
- Oplia
- Aruba
- Sonify (canopy, baffle and wall absorber system)

These families offer a range of Class A and C performance, along side a wide range of sizes, edge details shapes and colours. Paired with Gridline 15/24 for a full 30-year warranty.

Lecture Theatres and School Halls

Lecture theatres and school halls have unique acoustic requirements due to their size and multifunctional use. These spaces need well-designed acoustics to support speech intelligibility for lectures, assemblies, presentations, performances, and even musical events.



Our recommended solutions:

- Prestige
- Oplia
- Aruba
- Sonify (canopy & baffle and wall absorber system)

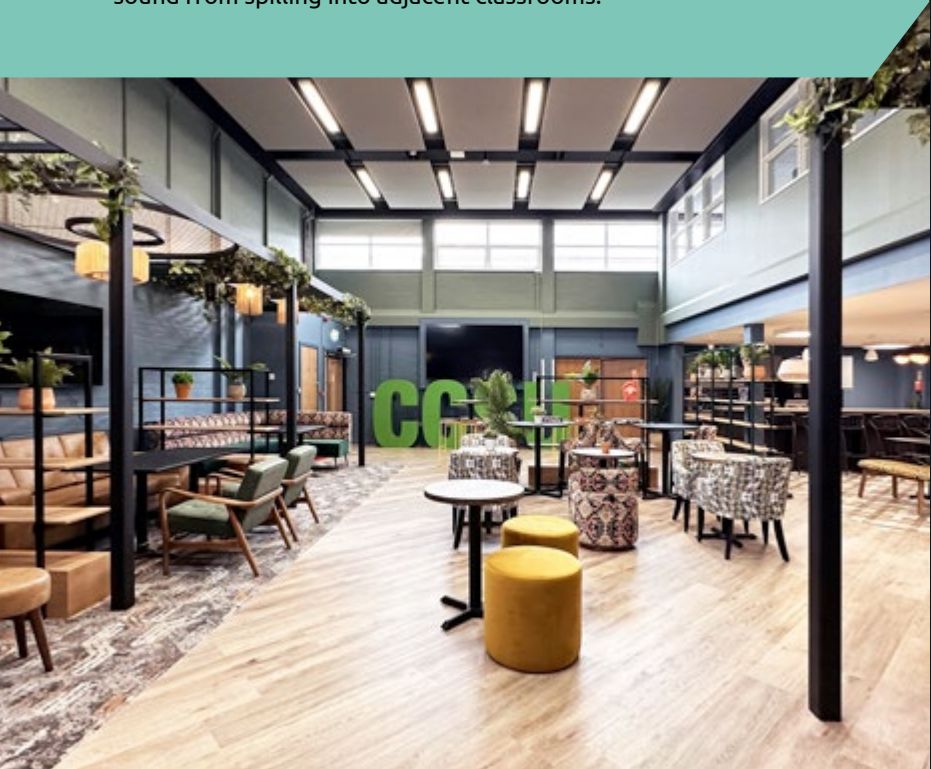
These families offer a range of Class A and C performance alongside a wide range of sizes, edge details shapes and colours. Paired with Gridline 15/24 for a full 30-year warranty.

	BB93 Performance standards for reverberation time Tmf seconds	
Room Type	New Build	Refurbished
Secondary School Classroom	≤0.8 sec	≤1.0 sec
Primary School Classroom	≤0.6 sec	≤0.8 sec

	BB93 Performance standards for reverberation time Tmf seconds	
Room Type	New Build	Refurbished
Lecture Theatre (more than 50 people)	≤1.0 sec	≤1.0 sec
Assembly/ multi-purpose hall	0.8 – 1.2 sec	0.8 – 1.5 sec

Communal Spaces

Communal spaces in schools are bustling areas where students gather, socialize, and move between classrooms. These spaces often require acoustic control to manage noise, reduce reverberation, and prevent sound from spilling into adjacent classrooms.



Our recommended solutions:

- Sonify (canopy, baffle and wall absorber system)
- DecoFrame (tile and frame system)
- Zentia coloured ceiling systems
- Prestige Planks

These families offer design flexibility, to enhance the environment to create signature spaces.

Available in a range of colours, shapes and sizes, unleash your creativity.

Changing Areas and Restrooms

School restrooms and changing areas are subject to high humidity, making durable, moisture-resistant ceiling tiles essential for these areas to ensure performance in challenging conditions.



Our recommended solutions:

- Sonify (canopy, baffle and wall absorber system)
- Aruba hH (high humidity)
- Hydrabloc

For changing rooms where humidity isn't a consideration Sonify can add a design led solution to provide acoustic performance.

For those areas requiring humidity performance, Aruba hH (high humidity) with a Corrosive Resistant Gridline would offer a 30-year system warranty.

Canterbury University

	BB93 Performance standards for reverberation time Tmf seconds	
Room Type	New Build	Refurbished
Atrium, foyer, entrance hall, circulation space not used for teaching and learning	≤1.5 sec	≤2.0 sec

Edinburgh University

	BB93 Performance standards for reverberation time Tmf seconds	
Room Type	New Build	Refurbished
Coats and locker area, changing area	≤1.5 sec	≤2.0 sec

Select the best solutions for your educational environment requirements

Zentia ceiling solutions are designed to meet the diverse needs of educational environments, making them ideal for every area within a school, from classrooms and lecture halls to communal areas, and changing areas.

Space	Prestige hA+	Prestige Family*	Oplia hA+	Oplia Family	Aruba Family	Aruba hH	Hydrabloc	Sonify	DecoFrame
SEN Classroom	•		•						
Primary School Classroom		•		•	•			•	•
Secondary School Classroom		•		•	•			•	•
Corridor		•		•	•			•	•
Lecture Theatre and School Halls		•		•	•			•	•
Communal Spaces / Open Plan		•			•			•	•
Changing Areas and Restrooms						•	•	•	•
Admin & Ancillary Spaces, Kitchen, Office, Medical Room, Staff Room, Corridor & Stairwell		•		•	•	•	•	•	•
Dining Room		•		•	•			•	•

*including colour & planks



Continuing Professional Development

Improve your knowledge and understanding of suspending ceilings with our wide range of learning resources. Whether you’re seeking a RIBA Approved CPD course, some hands-on training with our products, or curious about our manufacturing process, we have a training option for you.

RIBA and RIAI Approved CPDs

Choose one of our RIBA or RIAI Approved training sessions for architects and gain points towards your annual CPD requirements. This training can be delivered as an online seminar, but for the highest impact we recommend an in-person session at your practice. All our RIBA-accredited courses are delivered by our architectural and design consultants, with certificates awarded upon completion of the course.

Acoustics and Design in Education

Improve your understanding of acoustic standards for educational environments, including BB93. Learn how to combine acoustics with core interior design principles that support better health and wellbeing, and improved learning outcomes for students of all ages.

Contact your local architectural and design consultant for more information.

Other available CPD offerings:

- **Fire:** Suspended Ceiling Systems – the basics (RIBA Approved)
- **Health, Wellbeing and Productivity** (RIBA Approved)
- **Sound Advice:** Limiting noise annoyance in buildings (RIBA and RIAI Approved)





Zentia Website

The UK's market leader in complete ceiling solutions.



Book a CPD

Would you like to find out more about Zentia and the sectors we work with?



NBS Source

Specification should be seamless. Find all our products and BIM files.



Book a visit

Speak to a dedicated member of the Architectural & Design Consultancy Team.

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