

Acoustic Design Solutions for Educational Spaces

Discover the impact of acoustics on student learning and teacher well-being with our high-performing solutions



Sounds Beautiful



Turn noisy classrooms into calm learning spaces

The design of an educational facility can have a profound impact on the academic and social success of its students as well as the well-being of its staff members. From lighting to layout, every detail matters.

But one factor that is often overlooked is acoustics – despite the fact that it plays a major role in creating an environment which fosters learning and comfort.

In this guide, you'll learn more about how acoustic solutions can support educational architecture, whether that's in a new state-of-the-art educational facility or the renovation of an older campus. Discover trends in learning space design, critical insights, and essential knowledge as well as ideas for setting acoustic performance as a priority rather than an afterthought. And finally, you'll be able to explore the most suitable acoustic solutions for your project.

Our acoustic solutions create the perfect spaces for students to learn, relax, and play, while providing teachers with peaceful and productive environments to inspire their best work.

Parik Chopra, Managing Director, Rockfon



Project Yuverta School in Dordrecht, the Netherlands
Product Rockfon® Krios®

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Key Trends in Learning Space Design

Create a centre of excellence and well-being

Education has undergone a dramatic shift in recent times. Teachers, school leaders, and districts have been forced to swiftly alter their curriculum design and digital learning tools to provide quality online education. Most importantly, there is an ever-increasing emphasis placed on the well-being of both students and staff. Traditional education is being reevaluated; physical classrooms and the overall school layouts need to be reimagined to keep up with changing times.





Project Heistad Junior High School
in Porsgrunn, Norway
Product Rockfon® Koral™

Student and Teacher Well-Being

The correlation between interior design and mental health is becoming increasingly evident. Factors like noise levels, natural light, air quality, greenery, and material textures can have an immense effect on not only learning performance but also the entire teaching experience. With the ever-increasing focus being directed towards hygiene guidelines, this element will remain a top priority when planning any educational facility.

How can we help?

With 60 years of providing exceptional acoustic solutions, our products are not only aesthetically pleasing but have also been designed with the highest indoor climate labels and hygiene standards. We aim to boost comfort and learning performance while simultaneously lowering stress levels for students and staff alike – resulting in a safe yet relaxed educational environment.



Dynamic Learning

Evidence suggests that engagement increases when students actively participate in their learning experience. This has resulted in a shift towards more project-based and student-centered learning approaches, necessitating adaptable learning spaces with features like modular furniture, technology integration, and multipurpose educational areas. This places a greater emphasis on strategic school design and the need to control noise levels.

How can we help?

Our products are modular, customisable, demountable, and available in multiple formats, edges, and colours. This allows them to blend in harmoniously with the interior or break the conventions to be your centrepiece. In other words, we offer full creative freedom and flexibility to future-proof your interior spaces.

Safety Built-in

To ensure student and teacher safety, features like access control and security systems are thoughtfully implemented to create a secure yet tranquil learning environment. And with hygiene being at the top of our minds, it's essential to upgrade ventilation systems and air filtration so that everyone can enjoy an optimal level of health in the classroom.

How can we help?

Our stone wool ceilings are naturally resistant to mould and bacteria, providing a hygienic and easy-to-clean solution that meets rigorous standards. Additionally, stone wool offers excellent fire resistance, making it a safe and versatile choice for various settings beyond educational facilities.

Designing the Different Spaces of a School

Office Areas / 16



Classrooms / 8

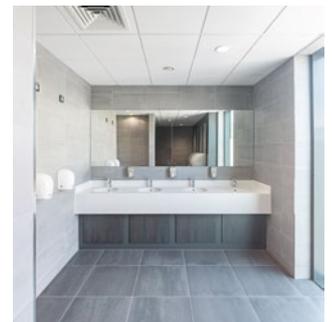


Entrances, Corridors & Breakout Areas / 12



Lecture Halls / 20

Bathrooms & Locker rooms / 32



Gymnasium / 36



Childcare / 40



Canteen & Kitchen Area / 28

ACOUSTIC SOLUTIONS FOR EDUCATIONAL SPACES

Acoustic solutions play a critical role in supporting conducive learning environments.

The different areas of the facility – classrooms, lecture halls, libraries, and music rooms – all have different acoustic needs depending on the types of activities that they house.

For example, speech intelligibility is without a doubt essential for knowledge transfer in classrooms, and acoustic treatments such as wall panels and ceiling tiles are necessary for sound absorption and echo reduction. In music rooms, studied sound reflection enhances the quality of music produced. To act as relaxing sanctuaries, libraries require sound insulation for minimal external noise distractions.

Regardless of the room type, one thing is certain: appropriate acoustic treatments are paramount for creating a comfortable and productive atmosphere that support well-being as well as effective teaching and learning.



Classrooms

Space – whether physical or virtual – can have an impact on learning

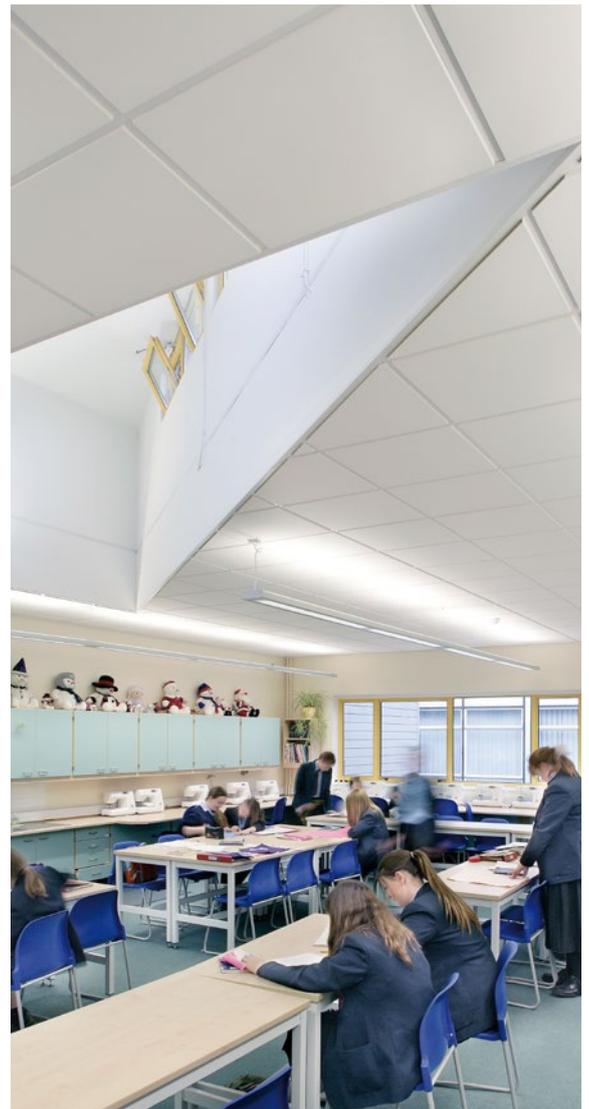
The right visual design and atmosphere are decisive elements that can either enhance or inhibit the learning experience

The use of colours, for instance, can help enhance concentration, reduce stress, and increase creativity, making the learning experience more enjoyable and effective.

A visually-appealing classroom is also known to boost teacher satisfaction, leading to a positive and healthy work environment.

Noise distracts from learning

The ability to communicate knowledge is key in classrooms. But when sound turns into noise, the learning environment becomes difficult for both students and teachers. Furthermore, noise impairs memory, concentration, the ability to distinguish speech, and the process of reading comprehension. To ensure optimal knowledge absorption, it's important that the lecturer is heard loud and clear by all members of the audience, with as little background noise as possible.





CASE STUDY

Islwyn High School,
Caerphilly, Wales

Challenges

Islwyn High School amalgamates two former schools and is a 21st Century Schools project, match funded by the Welsh Government with a contract value of £24 million. The impressive building includes 60 classrooms, eight science laboratories, an amphitheatre and extensive sports facilities. Rockfon products are installed throughout the school to control noise and harmonise with the contemporary interior.

Solutions and Results

4 800m² of Rockfon Koral E-edge tiles were installed in the classrooms to semi-conceal the grid and create a modern aesthetic. It is a well-priced tile which provides Class A sound absorption and the highest fire safety class (A1).



Architect Caerphilly Borough Council
Products Rockfon Rockfon® Koral™, Rockfon® Tropic™, Rockfon Blanka®



Project Yuverta School in Dordrecht, the Netherlands

Our Product Recommendation

Rockfon Blanka® Activity

Designed for spaces where speech intelligibility is crucial, and noise and activity levels are very high

This acoustic tile has a thickness of 40mm, making it ideal for controlling the sound level at low frequencies. Rockfon Blanka Activity features a smooth, non-directional surface that not only reduces installation time but also enhances the product's durability. Its resistance to dirt and everyday wear and tear helps extend its lifetime, making it a practical and cost-effective choice.

One U.S. study found that 50% of teachers had suffered irreversible damage to their vocal cords due to the Lombard effect.

Source Building in Sound – BIAMP Systems White Paper

KEY TAKEAWAYS

- Class A sound absorption
- A1 fire resistance standard
- Visible side: deep-matte, smooth, and super white painted fleece
- Rear side: back fleece
- Durable painted edges



Other products to consider:

Rockfon® Canva™

Freely design your school signage, display powerful statements, or support wayfinding by using Canva's modular form and detachable canvases. With wall panels, floor screens, and hanging dividers within the range, they're convenient for creating multipurpose learning spaces.

Rockfon Blanka® dB

This range of acoustic tiles has a stone wool core with a high-performance membrane on the back, reducing the transmission of noise from room to room. The tiles vary in width to provide increasing levels of sound insulation and sound absorption.

Rockfon® Soundstop™

This acoustic barrier is ideal for combination with our Rockfon Blanka dB range to reduce noise transfer in ceiling and floor plenums.



3 design tips for classrooms:

1. Use Class A acoustic ceiling and wall solutions to absorb all speech frequencies, especially the low ones.
2. Use white ceiling tiles with high light reflection and light diffusion to draw more natural light into every classroom.
3. A 40mm tile at the perimeters of the room can help increase speech clarity.
4. Select design elements that stimulate creativity, productivity, and motivation with their materials, textures, and colours.



Entrances, Corridors & Breakout Areas

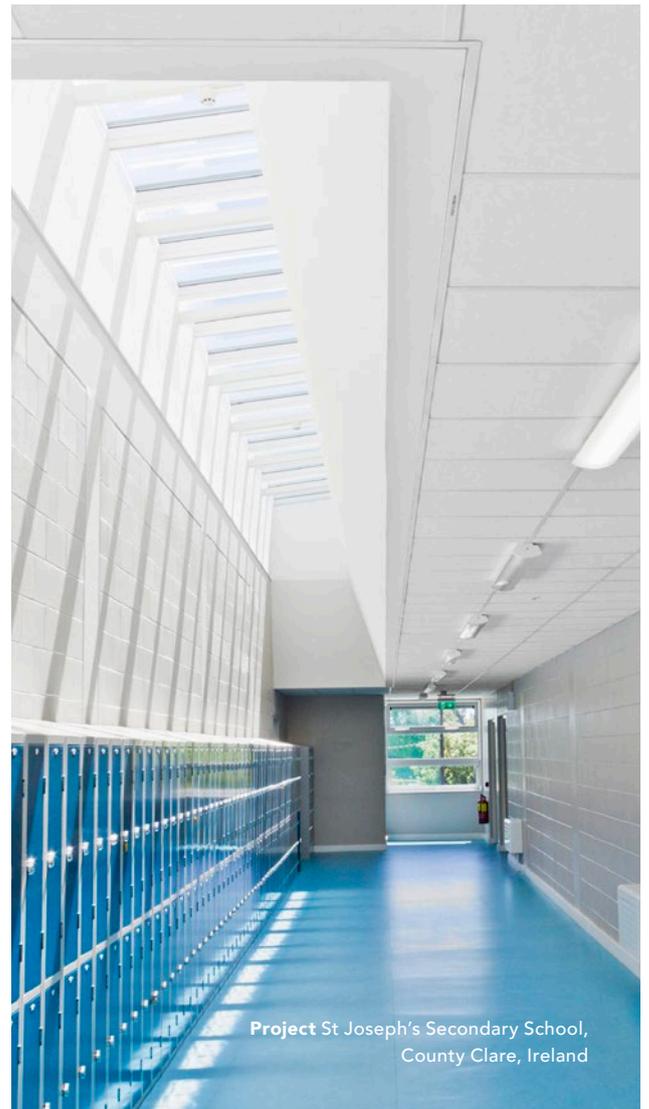
Education outside the classroom
is just as important

A collaborative environment for continuous learning

Transitions matter. Whether moving between classes or simply on a break, corridors are where bonds are forged and connections are made. This makes it the perfect place to augment the learning experience. Well-designed communal areas that foster a sense of calm and comfort in students can make the entire school experience more enjoyable for both students and educators.

The perfect combination of acoustics, aesthetics, and hygiene

Noise that seeps in from busy areas into classrooms can disrupt student concentration and hinder learning. Acoustic solutions help create calm environments by absorbing sounds – like loud conversations and laughter – all the while offering an aesthetic factor and supporting the required hygiene standards.



Project St Joseph's Secondary School,
County Clare, Ireland



Project Yuverta School in Dordrecht, the Netherlands
Product Rockfon® Tropic™

CASE STUDY

Northern School of Art, Middlesborough, UK

Challenges

This flagship project is a major focal point for creativity in the Tees Valley, providing a range of studios for fine art, textiles, photography, digital media and 3D product design.

The internal finishes provided a perfect backdrop for creativity, featuring exposed concrete frame and polished concrete flooring, coupled with splashes of colour throughout. These hard surfaces would require extensive sound absorption.



Products Rockfon® Universal™ Baffle, Rockfon Eclipse®, Rockfon Blanka® Activity wall panel
Architect Seven Architecture

Solutions and Results

Seven Architecture opted for Rockfon Universal Baffles and Rockfon Eclipse islands to work seamlessly with the clean minimalistic design and worked within budget constraints. The products were installed in a variety of rectangular formats, sometimes alongside slimmer shapes, to work with the services already installed around and above them.





Our Product Recommendation

Rockfon® Mono® Acoustic

A monolithic design solution, perfect for ceilings and walls

This is our most unique acoustic ceiling solution, adding a timeless touch to the interior. It can be shaped to suit your creativity – from domes to vaulted ceilings, from curves to origami shapes. It also provides 87% light reflection and 99% light diffusion, lending brightness to the interior while reducing energy usage during the day.

Poor acoustical design can result in excessive noise that is disruptive to the learning process and may negatively affect speech perception, student behaviour, and educational outcomes.

Source American Speech-Language-Hearing Association. 2023. "Classroom Acoustics."

KEY TAKEAWAYS

- Class A sound absorption
- Curve the surface to as little as a 1500mm radius
- Install sloping, flat, or curved in a suspension grid or mount directly
- Cradle to Cradle Certified® Bronze



Other products to consider:

Rockfon Contour®

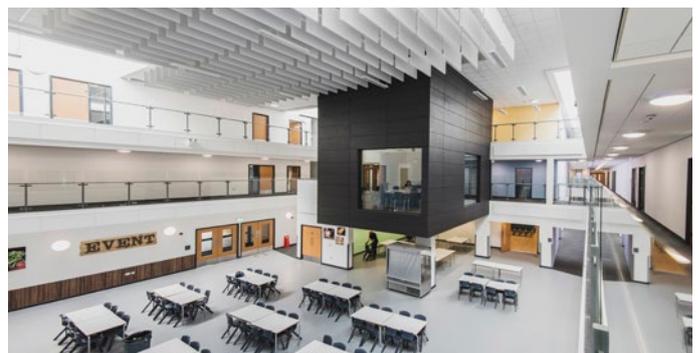
These frameless acoustic baffles are ideal for areas where architecture, skylights, or other design elements don't allow suspended ceiling. They are also suitable for spaces that require frequent and unhindered access to services.

Rockfon Color-all®

This range of acoustic tiles is available in our 34 exclusive Colours of Wellbeing, allowing you to enhance your interior design theme while also controlling sound reverberation.

Rockfon® Boxer™

This product meets the requirements of maximum impact resistance when paired with Rockfon System Olympia^{Plus} A Impact 1A, turning active spaces into comfortable and functional environments.



3 design tips for entrances, corridors, and breakout areas:

1. Employ sound barriers to separate these areas from the rest of the facility.
2. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
3. Incorporate biophilic elements, such as plants and natural textures, as well as different materials and colours, to foster well-being while breaking up the space.



Office Areas

Prioritise productivity and a sense of comfort

Craft each part of the office with a specialist approach

The office area serves multiple purposes – it's a place to work, plan, collaborate, build relationships, and deal with everyday challenges. Every part of the office plays its part in creating a sense of community for staff. By incorporating various design elements, colours, and textures, you can help inspire your staff and enhance your interior design while setting the desired mood.

Bring peace of mind to every unit

Creating a peaceful work environment depends on recognising that different work modes and styles require unique acoustic needs. However, many offices overlook these requirements and end up with excessively noisy environments. By designing bespoke spaces that incorporate sound-absorbing materials and eliminating reverberation, you can ensure that everyone can enjoy a pleasant office experience.



3 design tips for office areas:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Install sound barriers, such as floor screens or hanging dividers, to separate these areas from the rest of the school.
3. Select design elements that stimulate creativity with the use of materials, textures, and colours.

We have seen a remarkable difference in the indoor climate since Rockfon products were installed.

Source Principal Tom Stormyr, Heistad Junior High School



CASE STUDY

Glucksman Library, University of Limerick
Ireland

Challenges

The Glucksman Library at the University of Limerick has gained recognition as one of the largest and most technologically advanced campus libraries in Ireland. The library underwent a significant expansion project with a budget of 30 MEUR, which included the construction of a 7600 square metre extension. The new facilities were designed to provide students with advanced computing, collaboration, and communication spaces.

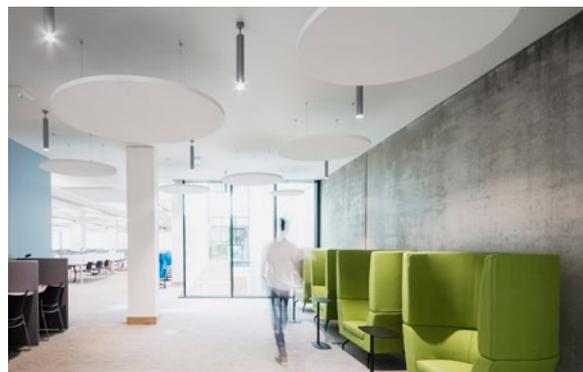
One of the primary challenges that the library faced was maintaining a serene environment while also providing spaces that foster dynamic and busy interactions.



Products Rockfon Blanka®, Rockfon Eclipse®
Architect RKD Architects

Solutions and Results

The solution relied heavily on the right acoustic products, dampening sound in noisy spaces to maintain speech clarity while protecting quiet ones from distraction. They opted for Rockfon Eclipse islands, which address both reverberations and volume while appearing to float above the scene. Fixed at different heights and angles, they're uniquely versatile. The same goes for Rockfon Blanka ceiling tiles. They addressed noise concerns in the library's conference rooms and provided warm backdrops at the same time.





Project Rockfon Showroom in Wijnegem, Belgium

Our Product Recommendation

Rockfon® Canva™

Combine aesthetic and acoustic performance in a single design element

Choose from the Rockfon palette of 34 contemporary Colours of Wellbeing or create a custom canvas with your choice of a brand logo, product, artwork, message, or signage – Rockfon Canva offers unlimited design freedom.

Furthermore, Canva’s modular structure and detachable canvases allow you to machine wash, dust, vacuum, or disinfect with anti-bacterial wipes. They’re the intelligent way to create clean, adaptable, feel-good art pieces with excellent acoustics.

** Product only available in certain countries, please contact your local sales representative for more details.*

KEY TAKEAWAYS

- Class A sound absorption
- Canvas is changeable and machine-washable
- Custom canvas design possible
- Frame size customisable
- Low emission rates with M1 and A+ certification



Product Rockfon® Lamella™

Other products to consider:

Rockfon® Lamella™

Lamella offers a selection of sizes and wood veneers to create an elegant solution with a distinctive design rhythm. The modular “click-in” system makes it simple to install. Lamella also has an excellent acoustic performance, helping meet health and wellness building standards.

Rockfon® Universal™ Baffle

This product is available in white and 33 inspiring contemporary colours and is perfect for offices with an exposed soffit. The two end caps and the fully-framed edges help prolong the product life.

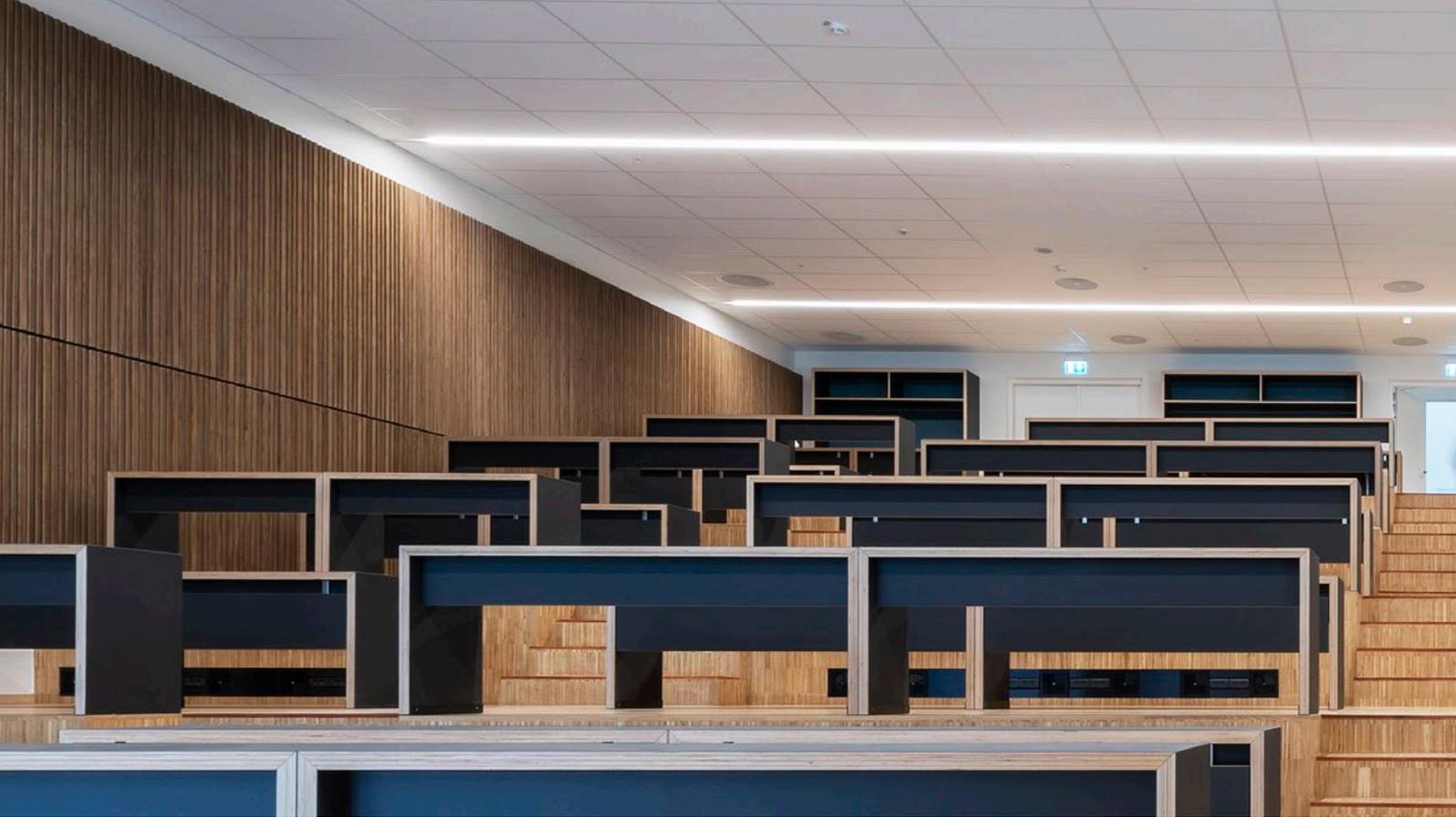
Rockfon® Senses

Combining the beauty of nature with the superior sound absorption properties of stone wool, Rockfon Senses helps reduce both unwanted noise and stress levels.



3 design tips for office areas:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Install sound barriers, such as floor screens or hanging dividers, to separate these areas from the rest of the school.
3. Select design elements that stimulate creativity with the use of materials, textures, and colours.



Lecture Halls

Imparting knowledge through sound

Enhance the learning experience using acoustics

A lecture hall serves many purposes – it's a place where knowledge is shared and ideas are interchanged. The lecture hall environment has to be curated in a way that minimises interruptions due to whispering, rustling, or movement. Having the right acoustics ensures that everyone in the hall can hear the lecturer without being distracted by background noise.

Ensuring cleanliness for a healthy learning environment

Hygiene is a crucial consideration for lecture halls, which are often used by large numbers of people. The aesthetic and acoustic design must be compatible with easy-to-clean surfaces to ensure that the knowledge transfer remains uninterrupted.

30.7% of the students say that they can only "pretty much" hear what is being said during class.

Source Danish Centre for Teaching Environment, 2013

3 design tips for lecture halls:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Install sound barriers, such as floor screens or hanging dividers, to separate these areas from the rest of the school.
3. Consider sound masking to blur out conversations and help others maintain focus.



CASE STUDY

Sct. Ib School and Kindergarten
Horsens, Denmark

Challenges

Studies have demonstrated that Danish classrooms frequently miss the mark when it comes to creating a calm, cultured learning environment. Disruptive and difficult spaces in which to learn, they directly impact student outcomes. Sct. Ib School wanted a different experience: where learning and well-being are at the forefront. This was especially challenging in common areas with large open floor plans.

Solutions and Results

Rockfon Blanka ceilings in white helped absorb noise and limit reverberations while drawing in bright light from the outdoors. Combined with skylights and restored designer lamps from a previous building, the result is a diffusely lit but bright space that contributes to calm and peaceful learning. Plus, the ceiling tiles were an optimal addition to the school's fire safety plans.



Product Rockfon Blanka®
Architect Ginneruparkitekter



Project Sct. Ib School in Horsens, Denmark

Our Product Recommendation

Rockfon Blanka® Bas

Upgrade your music rooms and lecture halls

Rockfon Blanka Bas is a high-performance acoustic ceiling tile designed to improve speech intelligibility and sound amplification in learning environments like music rooms and lecture halls. With a smooth, deep-matte, and super white surface, it offers high light reflection and diffusion to create a brightly lit space. It is also durable and resistant to wear and tear, making it a hygienic and long-lasting addition to any learning space.

KEY TAKEAWAYS

- 87% light reflection, 99% light diffusion
- Visible side: smooth, deep-matte, super white painted fleece/aluminium composite
- Rear side: back fleece
- Durable painted edges



Other products to consider:

Rockfon® Tropic™

This all-round tile has the highest sound absorption rating and a smooth white surface. It is also available in a wide range of dimensions, in semi-concealed and visible grid options, making it a popular and affordable choice.

Rockfon Color-all®

This range of acoustic tiles is available in our 34 exclusive Colours of Wellbeing, allowing you to enhance your interior design theme while also controlling sound reverberation.

Rockfon® Mono® Acoustic

This is our most unique acoustic ceiling solution, adding a timeless touch to interiors. It can be shaped to suit your creativity – from domes to vaulted ceilings, curves to origami shapes. It also provides 87% light reflection and 99% light diffusion, lending lightness to the interior while reducing energy usage during the day.



3 design tips for lecture hall areas:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Select design elements that stimulate comfort with the use of materials, textures, and colours.



Library

Prioritising all-round well-being

A tranquil space for learning

To create comfortable and productive libraries, it's essential to offer a variety of spaces for different activities and preferences. This could include designated areas for quiet study, collaborative work, relaxation, and socialising. In addition, libraries can incorporate elements such as sound-absorbing materials, natural light, greenery, and artwork to help reduce stress and increase feelings of happiness and well-being.

Designing libraries for the digital age

As society becomes increasingly digitalised, it is important to incorporate features such as computer labs, charging stations, and high-speed Wi-Fi into library design. While embracing new trends, libraries should also be spaces for traditional learning and research to ensure that all user needs are met.





CASE STUDY

Lincoln University Medical School
England

Challenges

The Lincoln University Medical School wanted learner-friendly spaces that went beyond the transmission of knowledge. Through biophilic design, which brings the natural world into common spaces and classrooms, they truly wanted to nurture the mental health and well-being of each student and educator. That included natural lighting, ventilation, visual links to natural landscape features, and natural materials.

Solutions and Results

Rockfon Eclipse islands were a critical design element, helping to neutralise excess noise that worked against well-being and promoted stress. The design team also incorporated Rockfon Blanka, thanks to its cutting-edge sound control and durability characteristics. With wall and ceiling systems working together, the university was able to save energy, reduce stressful artificial light, and promote wellness in all its indoor spaces.



Products Rockfon Eclipse®, Rockfon® MediCare® Standard, Rockfon Blanka®
Interior Designer BAM Design



Our Product Recommendation

Rockfon® Hub™

Bring multipurpose flexibility to your interiors

Create acoustically optimised library areas where people can concentrate, brainstorm, meet, or talk in private. Instead of hard walls, this first-of-its-kind suspended island can be curtained off to create a secluded zone, in an open fluid layout. The rounded island shapes in mood enhancing colours can be augmented with lights to accommodate all possibilities.

One study with 21 000 students in the U.S. showed that pupils with more access to natural light had 26% higher reading levels and 20% higher math scores.

Source Scientific American Mind, April 2009

KEY TAKEAWAYS

- Class A sound absorption
- Allows for the integration of lights and curtains

COLOURED TILE OPTIONS



FELT COVER OPTIONS





Project Library in Pontypridd Riverside Scheme, Wales
Product Rockfon Eclipse® Customised

Other products to consider:

Rockfon Blanka®

This acoustic tile has a smooth, deep-matte, and super white surface. With 99% light diffusion, Rockfon Blanka draws in natural light 11% deeper into every corner, saving up to 23% of electricity usage.

Rockfon Eclipse® Customised

Bring personality, style, and acoustic excellence to your interiors with custom-designed walls and ceiling islands. Available in any colour and shape, and manufactured to meet the highest standards.

Rockfon® Canva™ Hanging divider

This product helps create sound barriers to secure privacy for your conversations while also contributing to the fluidity of your library.



3 design tips for the library:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Install sound barriers, such as floor screens or hanging dividers, to separate these areas from the rest of the school.
3. Consider sound masking to blur out conversations and help others maintain focus.

Project Stansted Mountfitchet High School, England
Product Rockfon® CleanSpace™



Canteen & Kitchen Area

Building a sense of community

Refuelling in a clean environment

A great school cafeteria should be more than just a place to grab a quick, nutritious bite. It should be a positive and nurturing space as students enjoy their meals and socialise with their classmates. So it's essential that the cafeteria creates a serene and relaxing atmosphere while still conforming to hygiene standards.

Noise can affect our taste

Acoustic comfort is vital in a school canteen. Areas such as kitchens and canteens can become quite noisy during lunch time and affect students' ability to communicate and enjoy their meals. Unwanted sounds can also spread to other areas if the acoustics are not considered, affecting the entire facility. Furthermore, excessive noise can be particularly harmful to younger children, making it even more critical to prioritise acoustics in the design process.



Project Skibbreen Community School, County Cork, Ireland
Product Rockfon® Artic™



CASE STUDY

Dyson Institute of Energy & Technology
Malmesbury, England

Challenges

The Dyson Institute, renowned for its exceptional engineering programs, placed great importance on the design of their central "Roundhouse". The building serves as the centrepiece of the campus, and it was essential that it be spacious, well-lit, and inviting while retaining an intimate atmosphere that fosters conversation and togetherness. They recognised the need to ensure maximum comfort and tranquillity, while also ensuring that the design blends harmoniously with the surrounding environment.

Solutions and Results

In order to maintain a stress-free environment that promotes the well-being of students and teachers, dynamic learning, and safety all in one, Dyson opted for the peerless noise control capacity offered by Rockfon Eclipse. The sizes and shapes of the floating acoustic panels were chosen carefully, then cut using a laser process to ensure precise accuracy. The result was a space in which educators and students could meet with ease and comfort, safe from the stress of constant hubbub.



Architect WilkinsonEyre
Product Rockfon Eclipse®



Our Product Recommendation

Rockfon Color-all®

Enhance well-being and ambience by using colour

Our coloured ceiling solutions don't just reduce noise, they also help create unique spaces. This range of tiles has been carefully curated by interior design experts and includes 34 exclusive colours that are sure to inspire and enhance any interior space. Whether you're looking to create a warm and inviting atmosphere or a sleek and modern aesthetic, you'll find the perfect shade in this collection.

KEY TAKEAWAYS

- Available in 34 subtle yet playful Colours of Wellbeing
- Available with exposed, semi-concealed, and concealed edges in a large variety of module sizes
- Available with matching grid (main runner, cross tees, perimeter wall angle trim) in an attractive matte finish





Project Midtbyens Gymnasium in Viborg, Denmark

Other products to consider:

Rockfon Contour®

These frameless acoustic baffles are ideally suited for areas where architecture, skylights, or other design elements don't allow for suspended ceilings. They are also ideal for spaces that require frequent and unhindered access to services.

Rockfon® CleanSpace™ Pure

A smooth, deep-matte, pure-white, and cleanable ceiling tile with good acoustic properties. The product is long-lasting and can withstand numerous cleaning and disinfection methods with ISO Class 3 certification. CleanSpace Pure is suitable to use where food and drinks are being prepared and helps meet increasing hygiene standards.

Rockfon® Senses

Combining the beauty of nature with the superior sound absorption properties of stone wool, Rockfon Senses helps reduce both unwanted noise and stress levels.

3 design tips for canteen and kitchen areas:

1. Use Class A acoustic ceiling solutions to minimise noise reflecting from the ceiling.
2. Use Class A acoustic wall solutions to minimise noise levels, allowing people to have decent conversations with each other.
3. Use acoustic solutions that are easy to clean and resistant to the growth of mould and bacteria. This helps meet the most rigorous hygiene codes and safety regulations.

Only Rockfon managed to control sound and deliver the acoustics needed in the different rooms.

Source Lee Dade, Building and Project Leader



Bathrooms & Locker Rooms

Minimise noise and maximise hygiene

Create a hygienic bathroom area while minimising noise

While hard surfaces may be easier to clean, they can significantly increase noise levels by reflecting sound. It's important to ensure that prioritising cleanliness in bathrooms does not compromise privacy or quietness. As such, it's important to consider using noise-absorbing surfaces and solutions that are also easy to clean.

Choose materials that can resist humidity

In locker rooms and bathrooms, surfaces such as showers, toilets, sinks, counters, and floors are particularly prone to the accumulation of moisture and dirt. To prevent the buildup of mould, bacteria, or mildew, it's crucial to use surfaces that are humidity-resistant and easy to wipe down. This not only helps maintain their longevity but also reduces the risk of infestations.

Speaking louder to be heard continuously escalates the noise and makes a room even noisier. This is known as the "Lombard effect".

Source Pascal van Dort, Global Acoustics Ambassador





Project Police Academy in Vejle, Denmark
Product Rockfon Blanka®

CASE STUDY

Caldicot School, Monmouthshire,
Wales

Challenges

The £36.5 million project was delivered under the 21st Century Schools and Education Programme and has around 1300 pupils. Concrete soffits are exposed to reduce the cooling and heating demands, make the spaces more energy efficient.

Solutions and Results

Rockon Eclipse islands and Rockfon Contour baffles let the air flow freely around the school and control the level of reverberation to help improve speech intelligibility. Meanwhile, Rockfon CleanSpace Essential was used in the kitchens and bathrooms, providing moisture resistance and Class A sound absorption.



Architect BDP
Product Rockfon® CleanSpace™ Essential,
Rockfon Eclipse®, Rockfon Contour®



Our Product Recommendation

Rockfon® CleanSpace™ Essential

A cost-friendly, aesthetic ceiling tile that is easily cleaned

Rockfon CleanSpace Essential is a cost-friendly and long-lasting ceiling tile solution that is suitable for a variety of room types. Not only does this tile fulfil the highest demands in terms of cleanliness but it also has enhanced acoustic properties, contributing to a healthy indoor environment.

KEY TAKEAWAYS

- Class A acoustic performance with A-edge in 20mm thickness
- Easy to clean with damp cloth or vacuum cleaner
- Clean Room Classification: ISO Class 4
- Provides no sustenance to microorganisms
- Up to 100% relative humidity with no visible deflection



Other products to consider:

Rockfon® Koral™

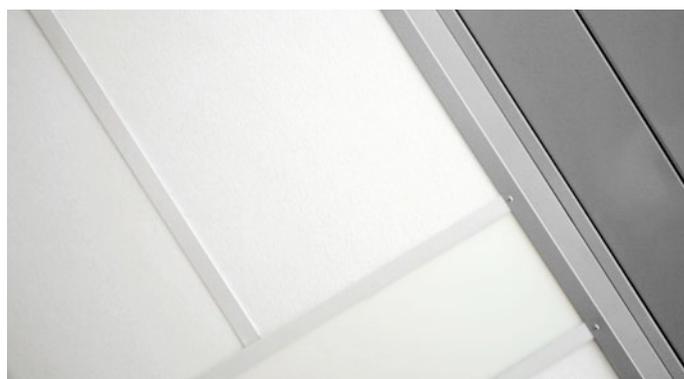
An attractive white, micro-textured surface that has the highest sound absorption rating – this easy-to-clean acoustic ceiling solution is a practical and affordable choice.

Rockfon® System T24 A, E ECR™

This ceiling system is suitable for humid and harsh environments where corrosion resistance, longevity, and safety are key considerations. Combined with our acoustic ceiling tiles, you have a solid, durable solution that works effectively in any indoor environment where moisture is a concern.

Chicago Metallic™ T24 Click 2890 ECR Class D

All grid components are extra galvanized with double side painting. The system includes accessories and wall angles also with Class D protection. This product is suitable for use in harsh environments that require frequent, rigorous cleaning.



2 design tips for toilets and locker rooms:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces.
2. Use sound-absorbing solutions that can withstand humid environments, which won't sag over time and do not contribute to mould and bacteria buildup.



Gymnasium

The premier environment for fitness, action, and fun

Sports can get noisy

Physical education is always a noisy endeavour. Running, laughing, shouting, jumping, and cheering can all contribute to the commotion. You can't eliminate the noise in a gymnasium, but you can mitigate it to minimise negative health effects.

Eliminate distractions and prioritise physical growth

With the right acoustics, you can ensure that the space is lively without being excessively noisy. Studies show that hearing damage is quite common in poorly-designed gyms. Hence, it's important to create an environment that promotes teaching and enjoyment rather than chaos. Using specialised sound-absorbing solutions can achieve this while also allowing you to meet the requirements for impact resistance.





Project American School of Barcelona, Spain
Product Rockfon® Universal™ Baffle

CASE STUDY

Kings Heath Boys School, Birmingham, England

Challenges

Kings Heath Boys School is a well-established school in Birmingham, but because of poor acoustics, its sports hall has been relatively unusable. The reverberation time within the hall was some nine seconds.

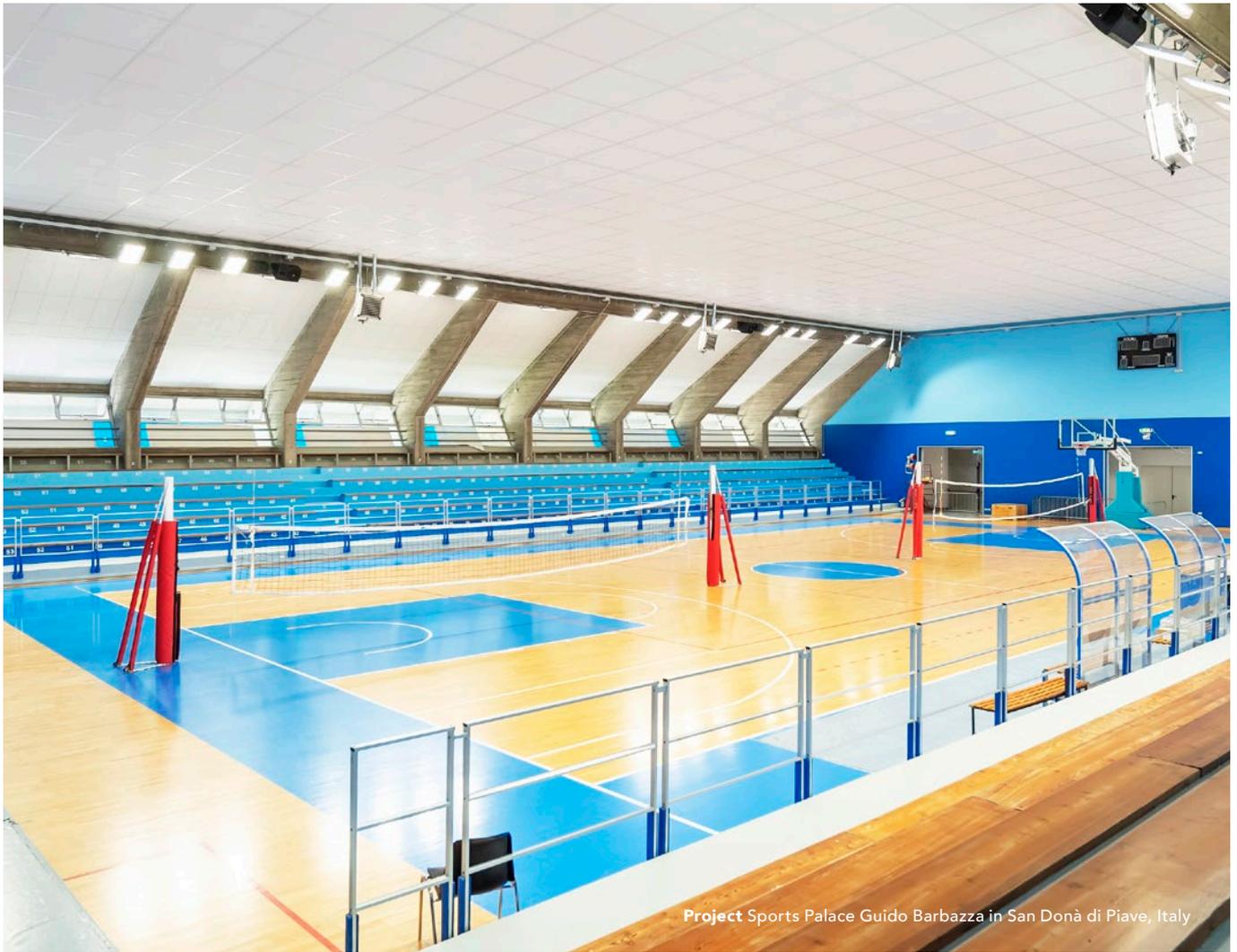


Solutions and Results

The school asked Cundalls for acoustic advice. In a sports hall, sound absorption should be built into the soffit and perimeter walls, however, the soffit could not be retrofitted. But acoustic panels were appropriate. 300m² of Rockfon VertiQ wall panels were fitted around the perimeter at 2.4 metres height. This halved the reverberation time in the sports hall and made it much more usable for the pupils and PE teachers.



Acousticians Cundalls
Product Rockfon® Universal™ Baffle



Our Product Recommendation

Rockfon® Boxer™

A highly impact-resistant tile ideal for indoor sports facilities

In a gym setting, it is important to reduce noise levels and improve speech clarity in order to create a more comfortable and functional environment. This can be achieved by implementing Rockfon Boxer on both the ceiling and walls. This sound-absorbing solution is also resistant to impact, as this type of active spaces will inevitably be subjected to rough treatment.

Exposure to noise-polluted rooms can be harmful to children's listening, reading, and speech development, as well as their concentration and memory retention.

Source Allen, J. G. 2017.

KEY TAKEAWAYS

- Excellent sound absorption for noisy and reverberant areas
- Meets the requirements of maximum impact resistance (Class 1A) when installed with Rockfon® System Olympia^{Plus} A Impact 1A™
- Visible side: micro-textured, white, and reinforced fleece
- Rear side: back fleece



Project Frydenberg School in Oslo, Norway
 Products Rockfon® Samson™, Rockfon® Industrial™ Baffle

Other products to consider:

Rockfon® Samson™

This product is designed for high-activity areas such as schools and sports facilities. It has an impact-resistant, white-woven surface, and provides excellent sound absorption to combat noisy and reverberant areas.

Rockfon® VertiQ® wall panel

This attractive, impact-resistant, and highly sound-absorbing wall panel is ideal for sports facilities. It is also available in four colours.

Rockfon Blanka® dB

This range of acoustic tiles has a stone wool core with a high-performance membrane on the back, reducing the transmission of noise from room to room. The tiles vary in width to provide increasing levels of sound insulation and sound absorption.



3 design tips for the gymnasium:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting from hard surfaces and to improve speech clarity.
2. Use sound-absorbing solutions that meet the requirements for impact resistance.
3. Select design elements that stimulate energy and positivity with the use of materials, textures, and colours.



Childcare

Sound, sight, and scent:
the sensory trifecta

Creating spaces that nurture and protect

Infants and toddlers are perhaps more susceptible to sensory overload, which can lead to mood swings, strange behaviour, or a general tendency to avoid bright lights in the future. Therefore, appropriate lighting, sounds, and scents are crucial for a stimulating and nurturing learning environment.

Making communication as noise-free as possible

To create an optimal learning environment in daycares, effective communication is crucial. Choosing the right acoustic solutions that reduce noise and echoes is essential for fostering clear vision, enabling children to better understand instructions, and explore their environment. This also provides a supportive space for caregivers to provide essential care and teaching.





Project Primary school and kindergarten, Poland
Product Rockfon Eclipse® Customised (Clouds)

CASE STUDY

Gen. František Fajtl Elementary School
 Prague, Czechia

Challenges

After almost a century in operation, Gen. František Fajtl Elementary School was ready for renovation. With active children who all play instruments from a young age, they needed spaces that would emphasise both excellent sound absorption and a clean, modern look. The renovation would enable them to keep focusing on what really mattered: foreign languages, music, and learning in general.



Architect Architektonická Kancelář Křivka
Products Rockfon Blanka®, Rockfon Blanka® Bas,
 Rockfon Artic®, Rockfon® VertiQ® wall panel

Solutions and Results

There were multiple objectives behind the renovation but sound-absorption solutions, which would limit reverberation time were a top priority. A selection of Rockfon acoustic solutions were installed to provide high sound absorption and promote speech intelligibility. These solutions also reflect and diffuse natural light, maintain a calm learning environment, and meet impact challenges. Acoustic measurements showed that the composition meets Czech standards for school acoustics, promoting a healthy and safe environment for students.





Project Rakegate Primary School in Wolverhampton, England

Our Product Recommendation

Rockfon Blanka® dB

Provides enhanced room-to-room sound insulation as well as the highest level of sound absorption (Class A) in areas where privacy, confidentiality, and speech clarity are important

This range of acoustic tiles has a high-performance membrane on the back, reducing the transmission of noise from room to room. The tiles vary in width to provide increasing levels of sound insulation and sound absorption, granting the possibility to satisfy different needs.

Babies often learn more with multisensory learning than they do through a single sensory system.

Source Edelman, G. M. 1987. Neural Darwinism. New York: Basic Books.

KEY TAKEAWAYS

- Dual layer stone wool tile with high-performance inner membrane
- Visible side: smooth, deep-matte, super white painted fleece
- Rear side: back fleece
- Durable painted edges
- Allows for vacuum and damp cleaning



Project Rakegate Primary School in Wolverhampton, England
Product Rockfon® Boxer™

Other products to consider:

Rockfon® Soundstop™

This acoustic barrier is ideal for combination with our Rockfon Blanka dB range to reduce noise transfer in ceiling and floor plenums.

Rockfon Color-all®

Our coloured ceilings and wall solutions don't just reduce noise – they also help create unique spaces. The range is available in 34 exclusive colours, providing a variety of possibilities to set the right mood in a daycare's interior spaces.

Rockfon® Senses

This collection features fragrant natural ingredients and provides a contemporary biophilic experience for all five senses. By combining high-performing sound absorption with the soothing benefits of nature, Rockfon Senses helps reduce both unwanted noise and stress levels.



3 design tips for daycares:

1. Use Class A acoustic ceiling and wall solutions to minimise noise reflecting off of hard surfaces.
2. Choose thick and dense sound-insulating materials to avoid sound transmission into an adjacent room.
3. Select design elements that stimulate cognitive development with the use of materials, textures, and colours.



Project Islwyn High School in Oakdale, Wales
Credit Hannah Rodsman and Phil Borman



Rockfon® Tropic™

A competitively priced, 'go to' tile for any education project. It is used extensively for classrooms, corridors and other parts of the education estate.

Rockfon Tropic is the biggest selling acoustic ceiling tile across Europe. It is well-known for its exceptional sound absorption, smooth contemporary surface and high light reflection.

Variety of dimensions

It is available in a wide range of dimensions, including lengths of 600mm, 1200mm, 1500mm, 1800mm and 2400mm to bring variety to a ceiling design.

Visible or semi-concealed grid options

The tiles are available in A-edges for an exposed grid or E-edges for a less dominant grid.

Great performance requirements

- Class A sound absorption
- A1 fire rating
- 86% light reflection
- Cradle-to-Cradle Certified Silver





Product Overview

Performance	Rockfon® Artic™	Rockfon Blanka®	Rockfon Blanka® Activity	Rockfon Blanka® Bas	Rockfon Blanka® dB 35	Rockfon Blanka® dB 41
 Sound absorption	α_w : 0.90 (Class A)	α_w : up to 1.00 (Class A)		α_w : up to 0.25 (Class E)	α_w : 0.80 (Class B)	α_w : up to 0.90 (Class A)
 Direct sound insulation	-	-	-	-	R_w = 19 dB	R_w = 21 dB
 Room to room sound insulation	-	-	-	-	$D_{n,r,w}$ = 35 dB with Acoustimass = 45* dB with Soundstop 30 dB = 50* dB	$D_{n,r,w}$ = 41 dB with Acoustimass = 52* dB with Soundstop 30 dB = 55* dB
 Surface durability	-	Durability and dirt resistance Wet-scrub resistance: Class 5				
 Impact resistance	-	Class 3A for Z and M edge	N/A		-	-
 Light reflection	82%	87% light reflection >99% light diffusion				
 Cleaning	Vacuum	Vacuum, damp cloth				
 Hygiene	Stone wool provides no sustenance to microorganisms. No visible deflection in high humidity					
 Humidity and sag resistance	Up to 100% RH					
 Reaction to fire	A1			A2-s1,d0		
 Environment	All products are recyclable					
 Clean room	-	-	-	-	-	-
 Disinfection	-	N/A				-
 Thermal insulation	-	-	-	-	-	-

*C - centre distance between baffle rows, H - suspension height: net distance between baffle and soffit.

** 2.6% quaternary ammonium, 0.25% hydrogen peroxide, 5% ethanol, and 70% isopropanol.

*** Tested with: Methicillin Resistant Staphylococcus Aureus (MRSA), Candida Albicans, Aspergillus Brasiliensis, E.Coli, Bacillus cereus.

M1 / zone 4 for the tested 5 pathogens. The particle elimination kinetics class conforms to CP(0.5)5 according to the norm NF S 90-351:2013.

	Rockfon Blanka® dB 43	Rockfon Blanka® dB 46	Rockfon® Boxer™	Rockfon® CleanSpace™ Essential	Rockfon® CleanSpace™ Pure	Rockfon Contour®
	α_w : up to 0.90 (Class A)	α_w : up to 0.90 (Class A)	α_w : up to 1.00 (Class A)	α_w : up to 1.00 (Class A)		A_{eq} (500 Hz) = 0.66 m ² /item
	R_w = 22 dB	R_w = 25 dB	-	-	-	N/A
	$D_{nrf,w}$ = 43 dB with Acoustimass = 54* dB with Soundstop 30 dB = 56* dB	$D_{nrf,w}$ = 46 dB with Acoustimass = 55* dB with Soundstop 30 dB = 58* dB	-	-	-	N/A
	Durability and dirt resistance. Wet-scrub resistance		-	-	Enhanced durability, dirt and wet-scrub resistance	N/A
	-	-	20mm: Class 3A (Rockfon System T24 A Impact 2A/3A) 40mm: Class 1A (Rockfon System Olympia ^{plus} A Impact 1A) 40mm: Class 2A (Rockfon System T24 A Impact 2A/3A) Tested in accordance with EN13964-Annex D	-	-	N/A
	87% light reflection >99% light diffusion		85%		86% light reflection >99% light diffusion	79%
	Vacuum, damp cloth				Vacuum, damp cloth, high-pressure cleaning (monthly and only applicable for A-edge installation)	Vacuum
	Stone wool provides no sustenance to microorganisms. No visible deflection in high humidity	Stone wool provides no sustenance to microorganisms. Microbiological class M1 fulfilling the requirements of Zone 4 (very high risk) defined by NF S 90-351:2013.***				
	Up to 100% RH			-	Up to 100% RH	
	A2-s1,d0		A1	A1		
	All products are recyclable					
	-	-	-	ISO Class 4	ISO Class 3	N/A
	-	-	N/A	-	Resistant to hydrogen peroxide vapour disinfection. Can withstand and will not be affected by UVC and Ozone disinfection	N/A
	-	-	λD = 37 mW/mK (40mm)	-	-	-

Product Overview

Performance	Rockfon® Canva™ Floor screen	Rockfon® Canva™ Hanging divider	Rockfon® Canva™ Wall panel	Rockfon Color-all®	Rockfon Color-all® wall panel
 Sound absorption	A_{eq} (m ² /item)	A_{eq} (m ² /item)	α_w : 0.95 (Class A)	α_w : up to 1.00 (Class A)	α_w : up to 0.95 (Class A)
 Direct sound insulation	-	-	N/A	-	-
 Room to room sound insulation	-	-	N/A	-	-
 Surface durability	Detachable, washable, and replaceable canvas			-	-
 Impact resistance	-	-	Tested for impact resistance in accordance with EN 13964-Annex D	-	-
 Light reflection	-	-	-	Colour-dependent	
 Cleaning	Frame: Vacuum, damp cloth, and low-pressure foam cleaning Canvas: Vacuum, damp cloth, and washing in normal machine wash cycle up to 70 degrees			Vacuum	
 Hygiene	Stone wool provides no sustenance to microorganisms. Microbiological class M1 fulfilling the requirements of Zone 4 (very high risk) defined by NF S 90-351:2013.***				
 Humidity and sag resistance	Up to 100% RH				
 Reaction to fire	B-s1,d0			A1 Color-all Mercury and As edge: Class A2-s1,d0	A1 Color-all Mercury: Class A2-s1,d0
 Environment	All products are recyclable				
 Clean room	-	-	N/A	-	-
 Disinfection	-	-	N/A	-	-
 Thermal insulation	-	-	-	$\lambda D = 37$ mW/mK	-

*C - centre distance between baffle rows, H - suspension height: net distance between baffle and soffit.

** 2.6% quaternary ammonium, 0.25% hydrogen peroxide, 5% ethanol, and 70% isopropanol.

*** Tested with: Methicillin Resistant Staphylococcus Aureus (MRSA), Candida Albicans, Aspergillus Brasiliensis, E.Coli, Bacillus cereus.

M1 / zone 4 for the tested 5 pathogens. The particle elimination kinetics class conforms to CP(0.5)5 according to the norm NF S 90-351:2013.

	Rockfon Eclipse®	Rockfon Eclipse® Customised	Rockfon Eclipse® wall panel	Rockfon® Hub™	Rockfon® Lamella™	Rockfon® Koral™
	A _{eq} (500 Hz) Rectangle up to 3.7 m ² /item	A _{eq} (m ² /item)	A _{eq} (m ² /item)	α _w : 0.95 (Class A)	α _w : up to 0.90 (Class A)	α _w : up to 0.95 (Class A)
	N/A					
	N/A				-	N/A
	Enhanced durability and dirt resistance	N/A	Enhanced durability and dirt resistance	Surface is detachable and washable in normal machine cycle up to 70 degrees	-	N/A as product is part of the "mid range"
	N/A		-	N/A	-	40mm: Class 2A (Rockfon System T24 A Impact 2A/3A) Tested in accordance with EN13964-Annex D.
	87% light reflection (rear side: 79%) >99% light diffusion	Colour-dependent	87% light reflection (rear side: 79%) >99% light diffusion	Colour-dependent		86%
	Vacuum, damp cloth	Vacuum	Vacuum, damp cloth	Frame: Vacuum, damp cloth, and low-pressure foam cleaning Canvas: Vacuum, damp cloth, and washing in normal machine wash cycle up to 70 degrees	Vacuum	Vacuum, damp cloth
	Stone wool provides no sustenance to microorganisms. Microbiological class M1 fulfilling the requirements of Zone 4 (very high risk) defined by NF S 90-351:2013.***					
	Up to 100% RH					
	A1 Rockfon Eclipse Rectangle 2360: A2-s1,d0	A2-s1,d0	A1 Rockfon Eclipse Rectangle 2360: A2-s1,d0	B-s1,d0	C-s2,d0	-
	All products are recyclable					
	N/A					-
	N/A					-
	-	-	-	-	-	-

Product Overview

Performance	Rockfon® Mono® Acoustic	Rockfon® Samson™	Rockfon® Soundstop™	Rockfon® Tropic™	Rockfon® Universal™ Baffle	Rockfon® VertiQ® wall panel
 Sound absorption	α_w : up to 1.00 (Class A)	α_w : up to 1.00 (Class A)	-	α_w : up to 0.95-1.00 (Class A)	A_{eq} (500 Hz) up to 0.93 m ² /item	α_w : up to 1.00 (Class A)
 Direct sound insulation	$R_w = 22$ dB		$R_w = 21$ dB $R_w = 30$ dB $R_w = 33$ dB	N/A	N/A	-
 Room to room sound insulation	-		-	N/A	N/A	-
 Surface durability	-	N/A	-	N/A as product is part of the "mid range"	N/A	-
 Impact resistance	-	40mm: Class 1A (Rockfon System Olympia ^{plus} A Impact 1A)	-	N/A	N/A	Tested for impact resistance in accordance with DIN 18032 Part 3
 Light reflection	87% light reflection >99% light diffusion	72%	-	86%	White (77%) Charcoal (4%) Color-all (Colour dependent)	White (72%) Light grey (61%) Grey (33%) Black (5%)
 Cleaning	Vacuum	Vacuum	N/A	Vacuum		
 Hygiene		Stone wool provides no sustenance to microorganisms. Microbiological class M1 fulfilling the requirements of Zone 4 (very high risk) defined by NF S 90-351:2013.***				
 Humidity and sag resistance		Up to 100% RH				
 Reaction to fire	A2-s1,d0	A1	C-s1,d0 and/or A1 depending on local assortment	A1	A2-s1,d0	A2-s1,d0 (EN 13501-1)
 Environment		All products are recyclable				
 Clean room	-	-	-	-	N/A	-
 Disinfection	-	-	-	N/A	N/A	-
 Thermal insulation	-	$\lambda D = 37$ mW/Mk	-	-	-	-

*C - centre distance between baffle rows, H - suspension height: net distance between baffle and soffit.

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M1 / zone 4 for the tested 5 pathogens. The particle elimination kinetics class conforms to CP(0.5)5 according to the norm NF S 90-351:2013.



We're your partner towards sustainable development

Sustainability sits at the heart of our research and development. It's why we use natural stone and constantly work towards a lower carbon footprint in our manufacturing. While we are not in every country with our Rockcycle solution yet, we're expanding our recycling service across Europe and Asia.

Many property developers have started to choose building materials that can contribute to sustainable construction. Building certifications like LEED, BREEAM, DGNB, or WELL are growing in popularity, and our products can help you earn points in these schemes.

Do you know that stone wool can be recycled repeatedly without any degradation in quality?

In some countries, we can both recycle our own old stone wool ceiling tiles and offcuts from installation, plus upcycle wet felted mineral fibre ceiling tiles from other manufacturers. We help make a meaningful contribution to a greener planet.

Visit our website for more information about our takeback scheme.

Rockfon sees sustainability as an imperative, driving us to reimagine acoustic solutions and their place in modern interiors.

Christian Klinge, Innovation Director at Rockfon





Project Copenhagen Tower II, Denmark
Architect Foster + Partners



Be part of making the world sound better to everyone

Rockfon is part of ROCKWOOL Group, and we're the world's leading acoustic company – our mission is to keep things quiet.

We're the shh in thoughtful classrooms

Every day, we're inspired to create innovative solutions that help people think, relax, and enjoy life more. Our acoustic solutions do more than reduce noise; they also create calmer, healthier buildings for students and teachers.

We're here to help

We have 22 offices and 7 manufacturing facilities worldwide, and we're on hand to help you find the right acoustic solutions for your next educational project.



We're your partner towards sustainable development

Our high-quality products are made from natural stone. They work, they're beautiful, and they last – until they're recycled to make more. And we provide all the necessary documentation to support you in creating a sustainable school project.

Our online resources

Explore our website for sound calculations, instruction videos, documents, and a comprehensive BIM library with objects compatible with ArchiCAD and Revit. Speed up your design processes with this free learning resource on: www.rockfon.co.uk

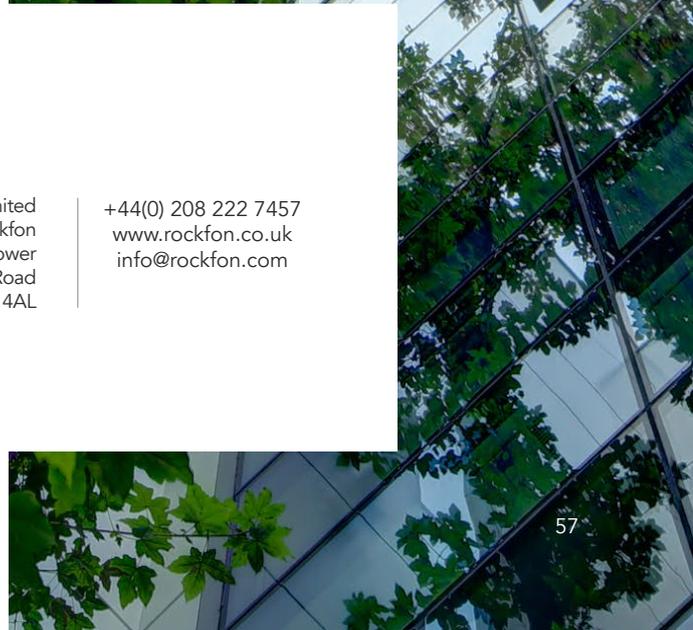
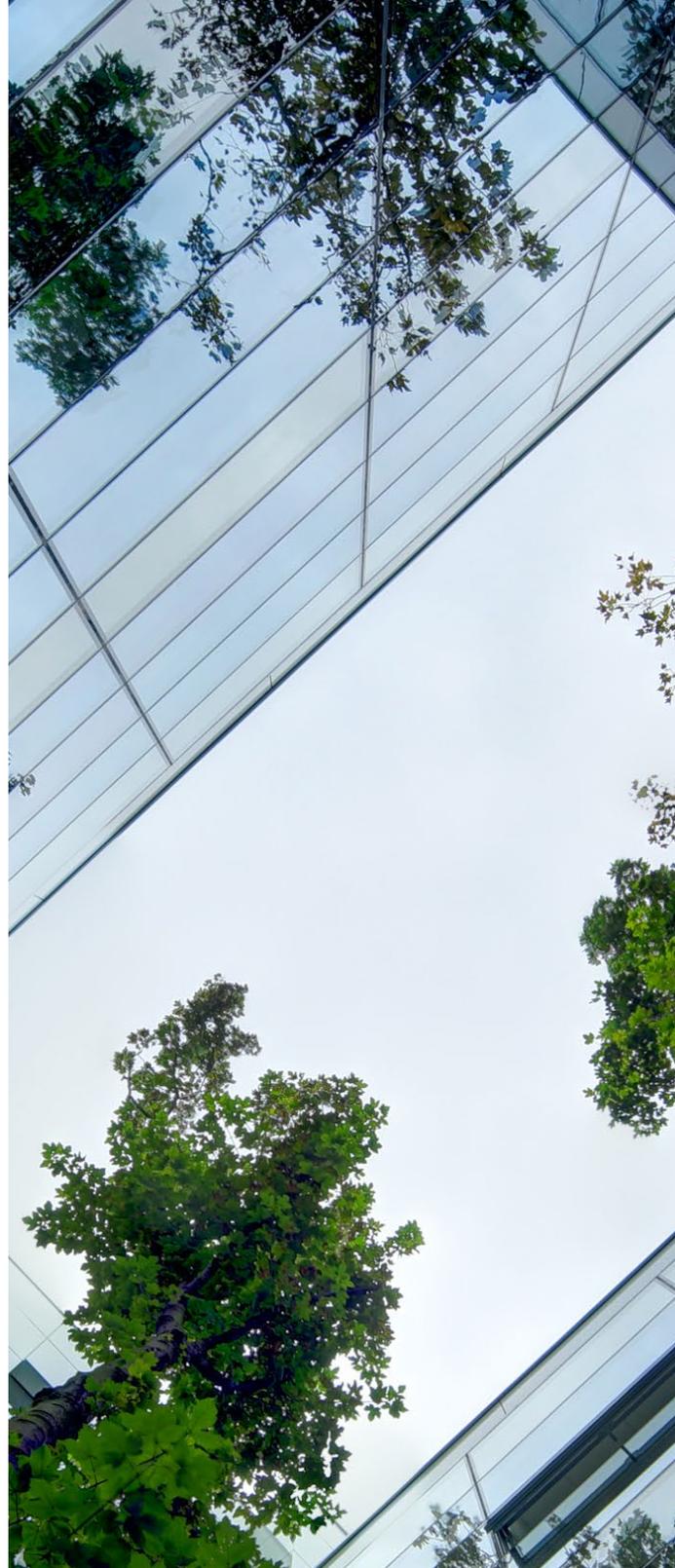
Let's connect

Whether you need advice on getting the right acoustic environment for your project, would like learn more about our products, or just need technical support, get in touch.

We're here to help.

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Sounds Beautiful

