

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

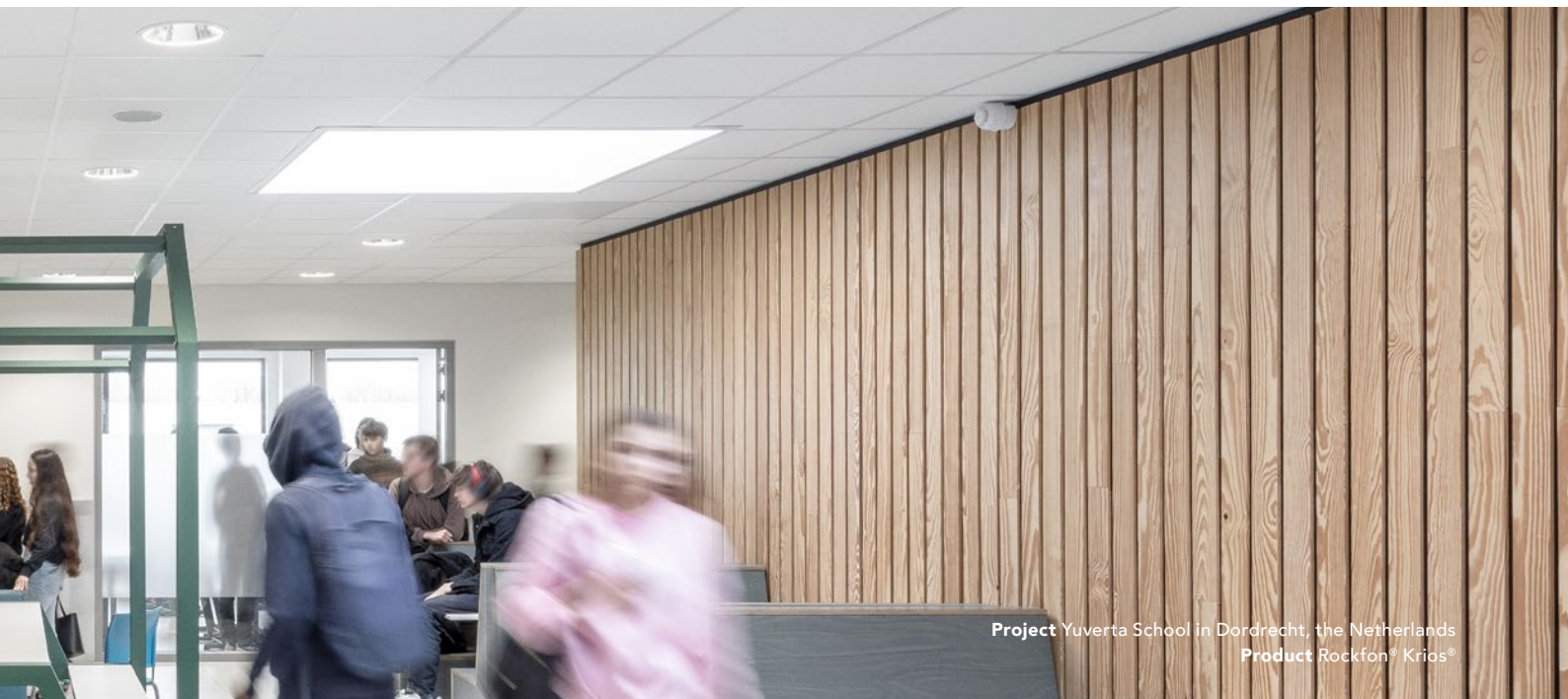
The design of an educational facility can have a profound impact on the academic and social success of its students as well as the well-being of its staff members. From lighting to layout, every detail matters.

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®

Content

Learning Space Design Trends	4
Overview of Room Types	6
Classrooms	8
Entrances, Corridors & Breakout Areas	12
Office Areas.	16
Lecture Halls	20
Library	24
Canteen & Kitchen Area	28
Toilets & Locker Rooms	32
Gymnasium	36
Daycare	40
Product Overview	44
Our Sustainability Goals	50
Our Services	52

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.





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

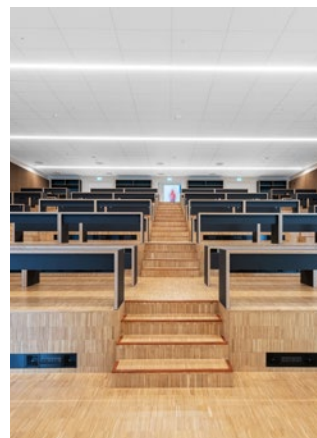


Classrooms / 8

Office Areas / 16

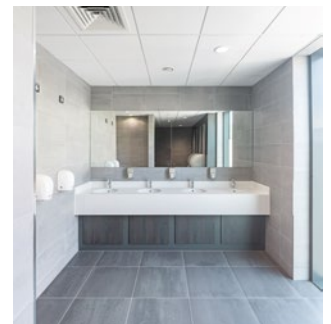


Entrances, Corridors & Breakout Areas / 12



Lecture Halls / 20

Toilets & Locker rooms / 32



Gymnasium / 36



Daycare / 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

Eichendorff Secondary School
Gottmadingen, Germany

Challenges

The Eichendorff Secondary School in Gottmadingen, near Konstanz, took its cue from modern concepts of passive design: making the most of natural resources such as heat and daylight. Its passive thermal ventilation and parquet floors, however, posed sound absorption challenges. The ventilation requirements meant that ceiling tiles were out, while the floor had to remain uncovered, or the benefits of the parquet flooring would be lost.

Solutions and Results

The design team installed Rockfon Eclipse ceiling islands throughout the school. Materials were hung at different heights and in different shapes to lend an organic look to rooms, learning zones, hallways, and canteen areas. This approach further complemented the passive design principles. Panels, doors, and partitions all make use of perforation for sound absorption while student workstations are located below sound-absorbing ceiling installations for maximum efficiency.



Architect Volker Weiß, Partner at Stahl+Weiß PartGmbH
Products Rockfon Blanka® Activity, Rockfon Eclipse®



Project Yuverta School in Dordrecht, the Netherlands

Our Product Recommendation

Rockfon Blanka®

Its super-white surface, with its high light reflection and light diffusion, creates a comfortable indoor environment with exceptional acoustics.

The range comes in multiple dimensions and edges for full design flexibility. It's available in different thicknesses, making it optimal for schools, where sound needs to be optimised for all speech frequencies.

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

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



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 and floor screens within the range, they're convenient for creating multipurpose learning spaces.

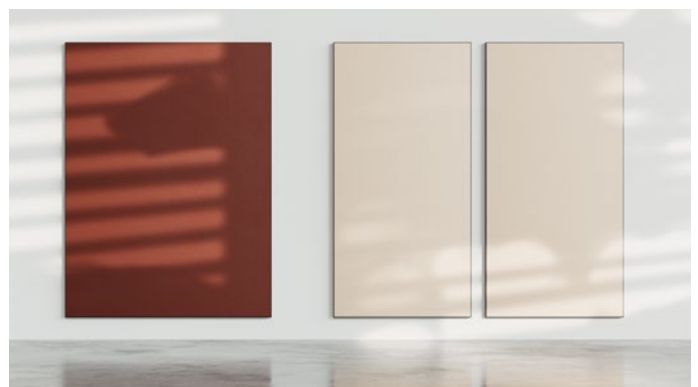
Rockfon Sonar® dB

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 Sonar dB range to reduce noise transfer in ceiling and floor plenums.

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



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

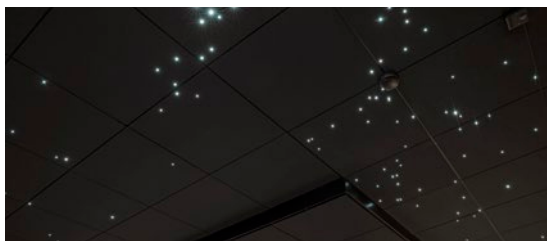
CASE STUDY

Uppsala University, Department of Economics
Sweden

Challenges

The project of designing a reading room for Uppsala University was challenging for architects and designers. This was due to the limited indoor space and the unique requirement of creating a starry sky inside.

In addition to this, the space needed to have dim lighting for a tranquil environment while providing enough light for students to see. A central gathering space, the "campfire", has specific lighting needs. They also needed to pay attention to noise control and low reverberation time for overall academic performance.



Products Rockfon Blanka®, Rockfon Color-all®
Architect Sweco Architects AB

Solutions and Results

The architects and designers employed various solutions to create a perfect reading room environment. To achieve a heavenly design, they selected Rockfon Color-all suspended ceiling in Charcoal. This ceiling provided a perfect design palette for creating a celestial atmosphere, and it is not only fire-resistant but also offers high-quality acoustics. The overall nighttime aesthetic of the reading room blends seamlessly with the exterior. This includes a bright space for conversation and video conferencing, which offers sweeping views of the outdoors.





Our Product Recommendation

Rockfon Eclipse®

Offer flexible installation possibilities and a wide selection of shapes and colours for total design freedom

This innovative and aesthetically pleasing frameless acoustic ceiling island offers excellent sound absorption. You can either suspend them from the ceiling or attach directly to the wall, adding a distinctive visual appeal to any room. In combination with the highest performance in sound absorption, they contribute to reducing reverberation time and sound levels.

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

- Stone wool island
- Visible side: smooth, deep matt, super white painted fleece
- Rear side: white backing fleece
- Painted edges



Other products to consider:

Rockfon Contour®

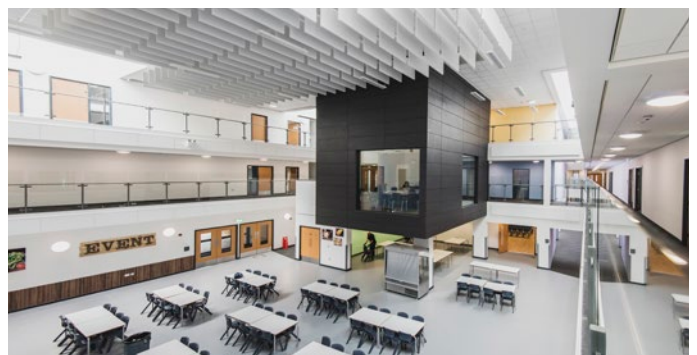
These frameless acoustic baffles are ideal for areas where architecture, skylights, or other design elements don't allow suspended ceiling. They are also suitable for spaces that require frequent and unhindered access to services.

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 floorscreens 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 Eclipse®

Other products to consider:

Rockfon Eclipse®

Rockfon Eclipse is a beautiful, frameless acoustic island that comes in a variety of geometric shapes. They are perfect for improving sound absorption in combination with a fun design.

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® Sonar®

It's attractive micro-textured white surface, with strong edges for superior durability creates a comprehensive range of aesthetically pleasing tiles.



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



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.

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

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® 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 Contour®

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



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 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

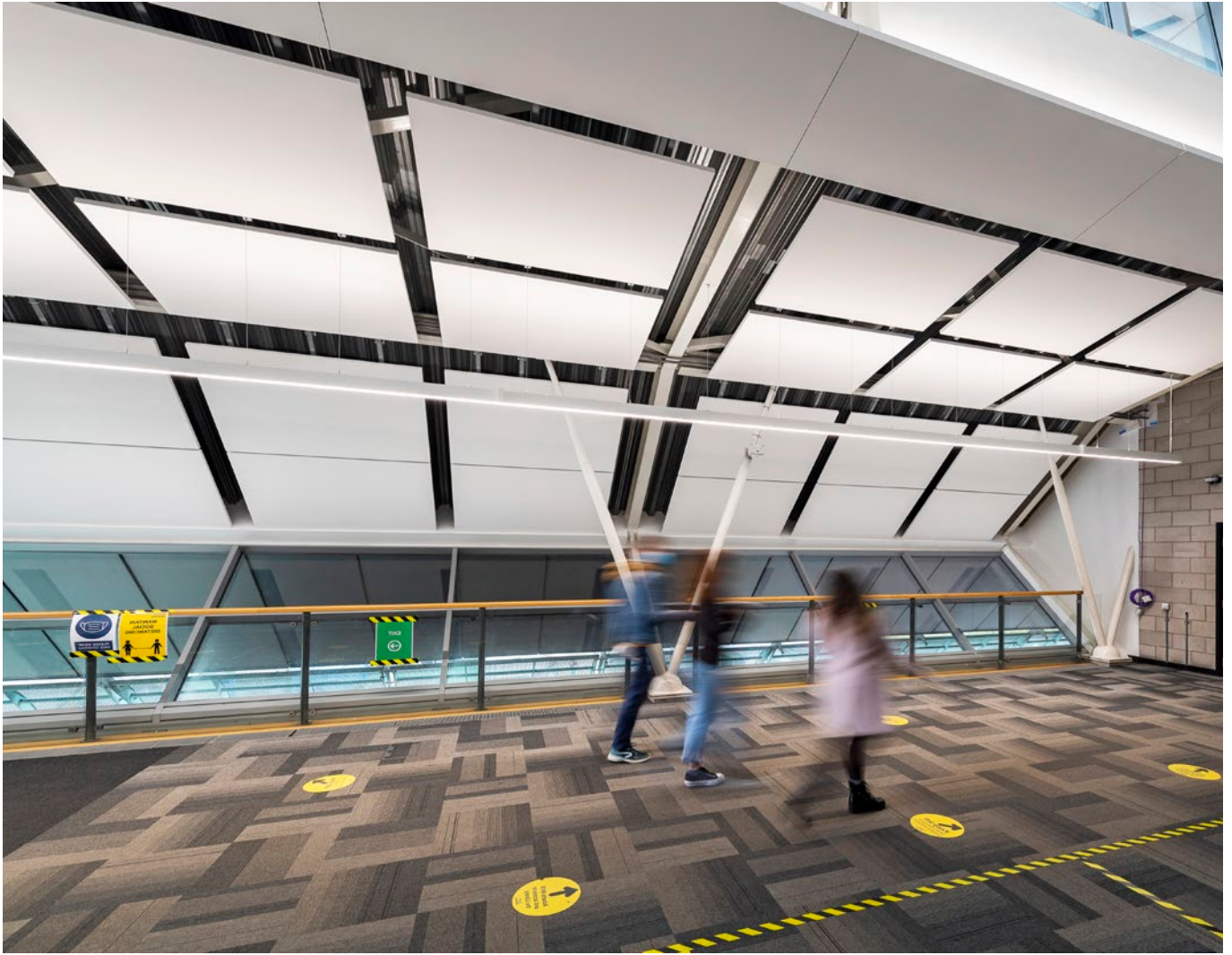
The Lincoln University Medical School wanted learner-friendly spaces that went beyond the transmission of knowledge. Through biophilic design, which brings the natural world into common spaces and classrooms, they truly wanted to nurture the mental health and well-being of each student and educator. 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 Eclipse® Customised

Bring personality, style, and acoustic excellence to your interiors with custom-designed ceiling islands— available in any colour and shape.

Manufactured to Rockfon highest standards, this product line doesn't just transform acoustics, it also allows you to set unique accents to the interiors. There are no limits to the creative possibilities.

KEY TAKEAWAYS

- Class A sound absorption
- Custom design in any shape, size, or colour
- Can be used to anchor lighting
- Quick and easy to install

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



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® Mono® Acoustic

Perfect for ceilings and walls, the innovative monolithic surface delivers outstanding acoustic comfort. The refined white surface provides high light reflection and light diffusion, ensuring even light distribution and reducing the need for artificial light.

* Rockfon® Canva

Freely design your office signage, display powerful statements, or support way finding by using Canva's modular form and detachable canvases. With wall panels and floor screens within the range, they are a smart and easy way to create flexible, feel-good spaces.

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



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.



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 Centre Communal d'Action Sociale (CCAS)
in Marly-le-Roi, France / **Product** Rockfon Eclipse®



CASE STUDY

Dyson Institute
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® MediCare® Standard

An outstanding balance of acoustic comfort and cleanability that doesn't contribute to the growth of MRSA and ensures low particle emission. By choosing a ceiling solution that is resistant to mould and bacteria, you ensure a safe space.

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



Toilets & 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 toilet areas, surfaces such as 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

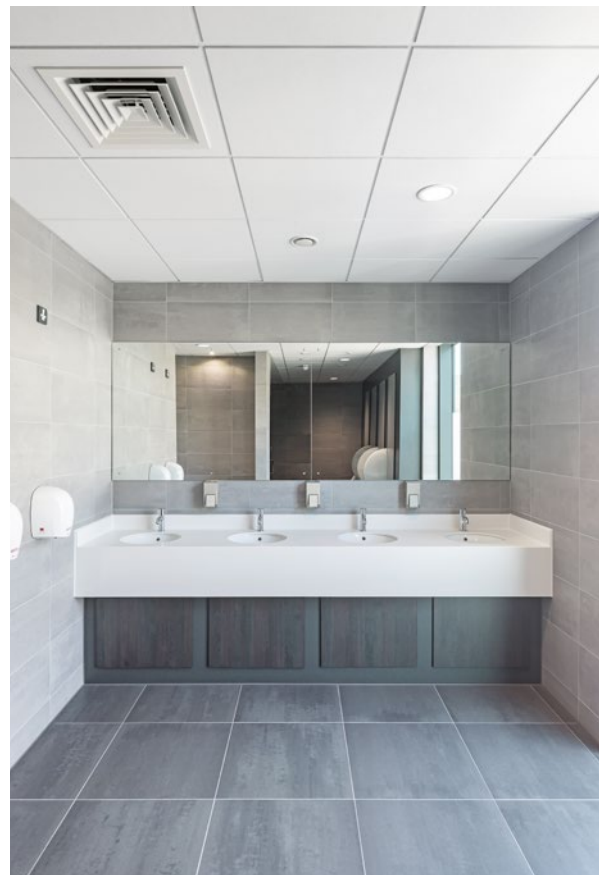
Police Academy
 Vejle, Denmark

Challenges

The Police Academy was looking to renovate two buildings and to build a third one. With so many students, training rooms, classrooms, and a large atrium, noise was going to be an issue. The academy also houses and serves meals to many of its cadets, so the school really needed to feel like a home.

Solutions and Results

The new police academy in Vejle has acoustically regulated ceilings throughout the building. Rockfon installed a range of acoustic solutions to support the school's many facilities and functions, with emphasis on sound absorption in training rooms. The meeting rooms are distinguished with a bright yellow colour for wayfinding. The improved acoustics and attention to detail will benefit future students.



Architect ERIK Arkitekter
Product Rockfon Blanka®



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



Product Rockfon® Koral™

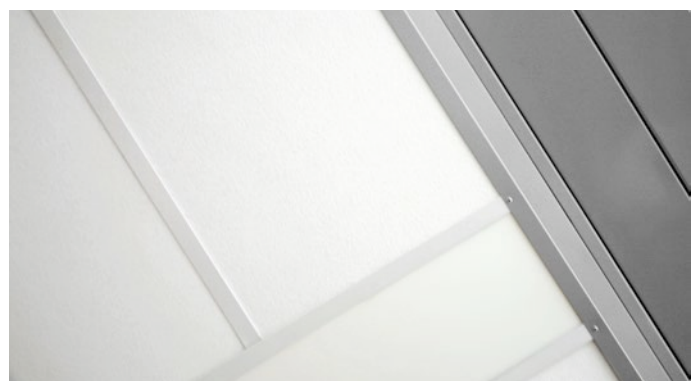
Other products to consider:

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® Artic®

This acoustical ceiling tile is made from stone wool and features standard sound absorption while featuring excellent sag, mold and mildew resistance. Ideal for most common applications



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.





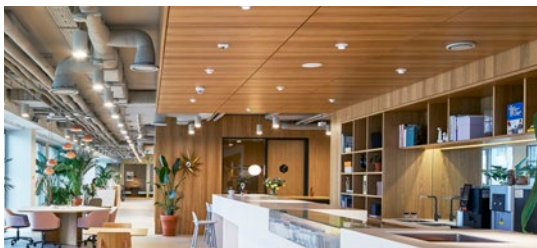
Project American School of Barcelona, Spain
Product Rockfon® Universal™ Baffle

CASE STUDY

American School of Barcelona
 Spain

Challenges

The American School of Barcelona (ASB) is a highly respected private international school in Barcelona. The school welcomes students ages 3 to 18, so they need a wide variety of acoustic solutions to meet a large range of activities. With buildings such as a combined gym and auditorium, basketball and volleyball courts, and more, noise was always going to be an issue. Yet, aesthetic appeal and a peaceful learning environment mattered as well. From the classroom to the gym, teachers and administrators needed to express themselves and be heard clearly while allowing the activities around them to take place.



Solutions and Results

Rockfon provided the perfect products to meet auditory and visual needs. The American School of Barcelona currently has 2000 square metres of Rockfon acoustic solutions to improve user comfort and ensure that the focus remains on learning. The music rooms contain Rockfon Blanka Activity tiles to achieve the best possible acoustic conditioning, while the gym and auditorium areas contain 800 Rockfon Universal Baffles to minimise noise, enhance speech clarity, and maintain comfort for all students.



Architect/Interior Designer Arq71 i Associats
Products Rockfon Blanka®, Rockfon Blanka® Activity,
 Rockfon® Universal™ Baffle



Project Sports Palace Guido Barbazza in San Donà di Piave, Italy

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.

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

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.



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

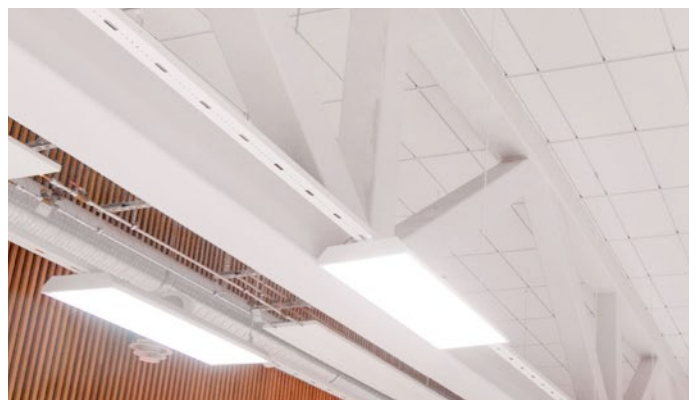
Other products to consider:

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 Sonar® 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.



Daycare

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 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® Canva™ Wall panel

With their modular structures and detachable canvases, these stylish acoustic wall designs are perfect for adaptable settings. They provide excellent acoustics with low installation costs and impressive visual appeal. You can quickly update the style when tenants or room functions change.

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



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.

Product Overview

Performance	Rockfon Blanka®	Rockfon Blanka® Activity	Rockfon Blanka® dB 41	Rockfon Blanka® dB 46	Rockfon® Boxer™	
 Sound absorption	α_w : up to 1.00 (Class A) NRC: up to 1.00	α_w : up to 1.00 (Class A) NRC: 1.00	α_w : 0.90 (Class A) NRC: 0.90	α_w : 0.90 (Class A) NRC: 0.90	α_w : up to 1.00 (Class A) NRC: 0.95	
 Direct sound insulation	-	-	R_w = 21 dB	R_w = 25 dB	-	
 Room to room sound insulation	-	-	D_{nrfw} = 41 dB with Acoustimass = 52* dB with Soundstop 30 dB = 55* dB	D_{nrfw} = 46 dB with Acoustimass = 55* dB with Soundstop 30 dB = 58* dB	-	
 Surface durability	Durability and dirt resistance Wet-scrub resistance: Class 5			Durability and dirt resistance. Wet-scrub resistance	-	
 Impact resistance	Class 3A for Z and M edge	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	
 Light reflection	87% light reflection >99% light diffusion			87% light reflection >99% light diffusion	85%	
 Cleaning	Vacuum, damp cloth					
 Hygiene	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.***		
 Humidity and sag resistance	Up to 100% RH					
 Reaction to fire	A1		A2-s1,d0		A1	
 Recyclability	All products are recyclable					
 Clean room	-	-	-	-	-	
 Disinfection	N/A		-	-	N/A	
 Thermal insulation	-	-	-	-	λD = 37 mW/mK (40mm)	

*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® CleanSpace™ Essential	Rockfon® CleanSpace™ Pure	Rockfon Contour®	Rockfon® Sonar™	Rockfon® Sonar® dB 41	Rockfon® Sonar® dB 46
	α_w : up to 1.00 (Class A) NRC: up to 1.00		A_{eq} (500 Hz) = 0.66 m²/item	α_w : up to 1.00 (Class A) NRC: up to 1.00	α_w : 0.90 (Class A) NRC: 0.85	α_w : 0.90 (Class A) NRC: 0.90
	-	-	N/A	-	Rw = 21 dB	Rw = 25 dB
	-	-	N/A	$D_{n,f,w}$ = 27 dB	$D_{n,f,w}$ = 41 dB	$D_{n,f,w}$ = 46 dB
	-	Enhanced durability, dirt and wet-scrub resistance	N/A	-	-	-
	-	-	N/A	-	-	-
	85%	86% light reflection >99% light diffusion	79%	85%		
		Vacuum, damp cloth, high-pressure cleaning (monthly and only applicable for A-edge installation)	Vacuum	- Vacuum - Damp cloth - Chemical resistance: resistant to diluted solutions of ammonia, chlorine and hydrogen peroxide		
	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					A2-s1,d0
	All products are recyclable					
	ISO Class 4	ISO Class 3	N/A	ISO Class 5	-	-
	-	Resistant to hydrogen peroxide vapour disinfection. Can withstand and will not be affected by UVC and Ozone disinfection	N/A	-	-	-
	-	-	-	-	Thermal conductivity: λ_D = 40 mW/mK Thermal resistance: R = 0,85 m²K/W	Thermal conductivity: λ_D = 40 mW/mK Thermal resistance: R = 1,25 m²K/W

Product Overview

Performance	*Rockfon® Canva™ Floor screen	*Rockfon® Canva™ Wall panel	Rockfon Color-all®	Rockfon Color-all® wall panel	
 Sound absorption	A _{eq} (m²/item)	α _w : 0.95 (Class A) NRC: 0.90	α _w : 0.95 (Class A) NRC: up to 0.95	α _w : 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	
 Recyclability					
 Clean room	-	N/A	-	-	
 Disinfection	-	N/A	-	-	
 Thermal insulation	-	-	λD = 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.

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

	Rockfon Eclipse®	Rockfon Eclipse® Customised	Rockfon Eclipse® wall panel	Rockfon® Koral™
	A _{eq} (500 Hz) Rectangle up to 3.7 m²/item	A _{eq} (m²/item)	A _{eq} (m²/item)	α _w : up to 0.95 (Class A) NRC: up to 0.90
	N/A			
	N/A			
	Enhanced durability and dirt resistance	N/A	Enhanced durability and dirt resistance	N/A as product is part of the "mid range"
	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	86%
	Vacuum, damp cloth	Vacuum	Vacuum, damp cloth	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	-
	All products are recyclable			
	N/A			-
	N/A			
	-	-	-	-

Product Overview

Performance	*Rockfon® Mono® Acoustic	Rockfon® Soundstop™	Rockfon® Tropic™	Rockfon® Universal™ Baffle	Rockfon® VertiQ® wall panel
 Sound absorption	α _w : 0.90 (Class A) NRC: 0.90	-	α _w : up to 1.00 (Class A) NRC: up to 1.00	A _{eq} (500 Hz) up to 0.93 m²/item	α _w : 1.00 (Class A) NRC: 1.00
 Direct sound insulation	R _w = 22 dB	R _w = 30 dB	N/A	N/A	-
 Room to room sound insulation	-	-	N/A	N/A	-
 Surface durability	-	-	N/A as product is part of the “mid range”	N/A	-
 Impact resistance	-	-	N/A	N/A	Tested for impact resistance in accordance with DIN 18032 Part 3
 Light reflection	87% light reflection >99% light diffusion	-	86%	White (77%) Charcoal (4%) Color-all (Colour dependent)	White (72%) Light grey (61%) Grey (33%) Black (5%)
 Cleaning	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	C-s1,d0 and/or A1 depending on local assortment	A1	A2-s1,d0	A2-s1,d0 (EN 13501-1)
 Recyclability	All products are recyclable				
 Clean room	-	-	-	N/A	-
 Disinfection	-	-	N/A	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.

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



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?

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.

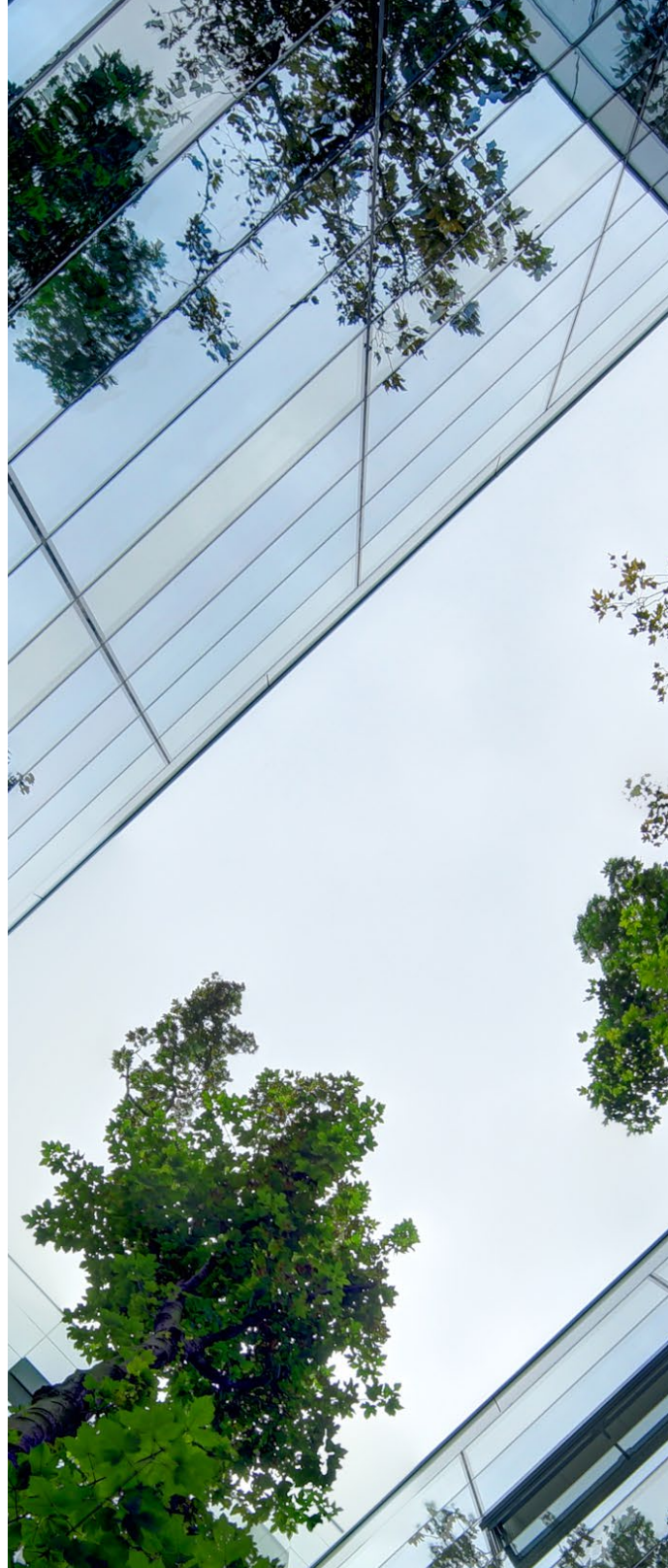
Our online resources

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: ***en.rockfon.international***

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

