

Design for Office

Office
Guide



How acoustic solutions make a difference for productivity and wellbeing in office spaces

Sounds Beautiful

Do you want to make your next office design sound as good as it looks? If you're building a modern office space or upgrading an old commercial one, this brochure is for you. You'll find the latest trends that are shaping the workspace design and tips for making acoustics more than just an afterthought.

This easy-to-navigate booklet was developed for Architects and Designers as a tool to inspire and guide the reader with insightful knowledge about optimising the office space for work and wellbeing.

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Our acoustic solutions help employees concentrate, collaborate, and they improve productivity and wellbeing in the workspace.

Parik Chopra

Managing Director, Rockfon

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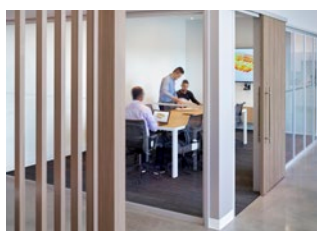
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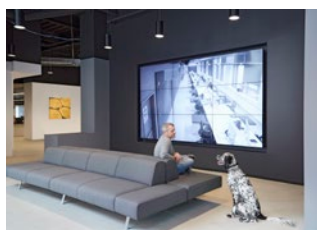
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Current trends in offices

Are you looking to create an office space where people are productive and comfortable without having to compromise on your design? We want that for you too. This is why we're continuously collaborating with architects and interior designers to find solutions that are both attractive and that help people hear themselves think at work.

Let's take a look at which trends are shaping the design of offices today.



Flexibility 2.0

Flexibility will be king in the office space 2.0. Workplaces will need to be agile enough to compensate for unforeseen circumstances, where the day-to-day work styles are required to adjust or working proximity needs to be augmented. Equally, they need to empower new office concepts, which would avoid massive renovation overhauls or avoid office spaces being left vacant and unused.

How can we help

Our acoustic solutions integrate harmoniously with other building materials for a holistic design, and they are available in multiple formats, edges and colours to address different designs. They are adaptable by design, which gives you quick conversion and a futureproof space that people will love coming to.

An improved acoustic environment in offices can reduce stress levels by 27% and increase employee focus by 48%.

Sykes, David M., PhD. Productivity: How Acoustics Affect Workers' Performance in Open Areas. 2004

Wellbeing

People are becoming more and more aware of their surroundings and the effect that it has on them - and nowhere is this more true than in the office space. Wellbeing is already a central tenet of office design, but its attention will continue to grow in the future as employees are more cognisant of what they need to work best. A lot of attention will be focused on the way a space makes a person feel, concentration levels, productivity, acoustics, speech intelligibility, privacy and mental health in general.



How can we help

Wellbeing sits at the heart of everything that we do. Our acoustic solutions promote comfort, wellbeing and productivity by reducing noise in any office type, big or small - creating an environment that enables people to work, concentrate and collaborate without being distracted.

Safety built-in

Safety will be a core principle for the office of the future. Extended scrutiny will be focused on building materials and their safety, not only for the people working with them, but equally for the people that will live with them. Increased attention will be targeted on things like fire resistance, particle emissions and cleanability. Documented testing and results will be a necessity in the future.

How can we help

Sourced from natural stone, our solutions are hygienic and repel mould and bacteria. They are durable, resisting fire, impact and dirt and they have been awarded the best-in-class indoor climate labels like the French VOC A+ and Finish M1, among others - making it easier to maintain healthy buildings for happier occupants.

Various environmental characteristics can have a direct impacts on mental health and well-being, such as noise, indoor air quality and light.

Evans GW. The built environment and mental health.
J. Urban Health 2003; 80(4): 536-555



Building green

The office of the future will become greener. Sustainability will continue to occupy centre stage, but, there will be a sharper spotlight on product durability and the circular economy. Property developers will increasingly look to have their buildings certified by building schemes and reduce their material footprint.



How can we help

Stone wool is the sustainable construction material choice and your contribution to the circular economy. Our products are durable, and they work until they are recycled to make more. We're continuously working to reduce our carbon footprint across our manufacturing and supply chain, and because our acoustic solutions are fully close-looped, nothing gets wasted.

How to design for different **spaces** in an office

Pleasant, productive workplaces

Creating a great office space means empowering workers to create, concentrate and collaborate. Designing for different functions, needs, and working methods is not easy, and many elements need to be carefully considered for an optimal result.

Strength of Rockfon

A starting point for a comfortable and inviting office space is great acoustics, and we've got you covered there. Our broad range of solutions gives you the freedom to create agile, comfortable and safe spaces, both for the occupant and the environment.

- 1 Reception area
- 2 Hallways and breakout areas
- 3 Open-plan offices
 - 3a Cell office
 - 3b Phone intensive offices
- 4 Small offices
- 5 Meeting rooms
- 6 Canteen
- 7 Parking garages





Reception area

An important first impression

The reception area is a focal point of the office space, with a lot of traffic passing through each day. This busy space does more than just welcome and guide employees, guests and customers, it's a building's handshake, and it sets the tone for the architectural design and brand of the building as well as the companies using it.

A great reception design focuses on acoustic comfort, elegance, durability and simplicity.

Capitalise on comfort

It is paramount for reception areas to be comfortable, both visually and acoustically, bright, capitalising on natural light, and durable enough to withstand the everyday wear-and-tear it will get from the many people travelling through it each day.

Generally, we find a lot of hard surfaces in the reception area, which is fantastic for durability, but reflective surfaces such as glass, concrete and stone cause sound to reverberate, creating a noisy and unpleasant experience for occupants and visitors alike. By building acoustic into the design phase, your able to ensure that you have an enjoyable and elegant design.



By working
with light
reflection, you
can draw light
into a space
by up to 11%.

Jörg Kaufung, Product Manager



Roompot Vakanties

Goes, The Netherlands

Challenge:

Roompot Vakanties is a company that rents cottages and they wanted their new office space and reception area to be warm and inviting, like their chalets.

Solution and results:

RoosRos Goes architects designed this sleek and modern building reception area to reflect the new brand positioning of Roompot Vakanties. Rockfon Blanka® and the Matt-white 11 grid were the perfect combination to reflect the contemporary visual design that they wanted to communicate.

◀ CASE STUDY

Get inspired!

Branding comes in many forms and the office space design is frequently used to display a brands identity.

Creating a good experience from the moment you enter a company will leave people with positive emotions. That experience does not only rely on the people working there but also on the atmosphere of the space.

Adding a splash of corporate colour, ensuring a comfortable indoor climate with natural daylight and high sound absorption help the reception area act as an outreach to visitors and employees.



Make a great first impression

Reception areas design solutions

When someone visits an office, the reception area should welcome them in and make them feel at ease right away. It is important that conversations at the reception desk are kept from spreading, that speech clarity is enforced as the space is busy and noisy in itself and that sound is controlled to avoid echoing.

Product Highlight

Rockfon® Mono® Acoustic

A unique design solution for new build or renovation projects alike. 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.



Here are some products we recommend



Rockfon Blanka®

Offers you the best acoustic properties to ensure a comfortable noise level. The super white surface helps you capitalise on natural light and draw in daylight further.



Chicago Metallic™ Matt-White 11 Grid

Its unique surface reduces the visual contrast between your grid and tile, giving you an elegant and almost monolithic look, even if you choose to have an acoustic ceiling tile with a visible grid.



Rockfon Color-all®

Comes in 34 exclusive colours of acoustic ceiling and wall solutions to inspire and enhance your interior design scheme, helping make your reception area more personal while controlling the noise.



Acoustic design tips

Three tips for creating a great acoustic environment in the reception areas.

1. Use high-quality sound-absorbing materials to ensure speech clarity and reduce echoing.
2. Use Biophilic design and bring in plants and vertical gardens to break up the space and soften the echoes.
3. Use soft flooring and use fabric-based furniture to regulate noise levels.

Hallways and breakout areas

Optimising the space

Hallways are how people navigate the office landscape, and as such, it is often where people bump into colleagues, leading to impromptu conversations. More and more the hallways are also designed as small breakout spaces optimising on the space plan. These meetings can be distracting for people working nearby, leading to a drop in efficiency and productivity.

Shh! Be quiet!

These informal meetings in the hallways and breakout areas are essential for modern work life. However for these to work in the overall space, acoustics needs to be considered. Sound travels throughout a building, if not controlled and that can lead to a break in concentration from employees not involved in the conversation. White noise, sound-absorbing ceilings, wall solutions and screens are all measures to consider when designing hallways and breakout areas.

LE34

Aarhus, Denmark

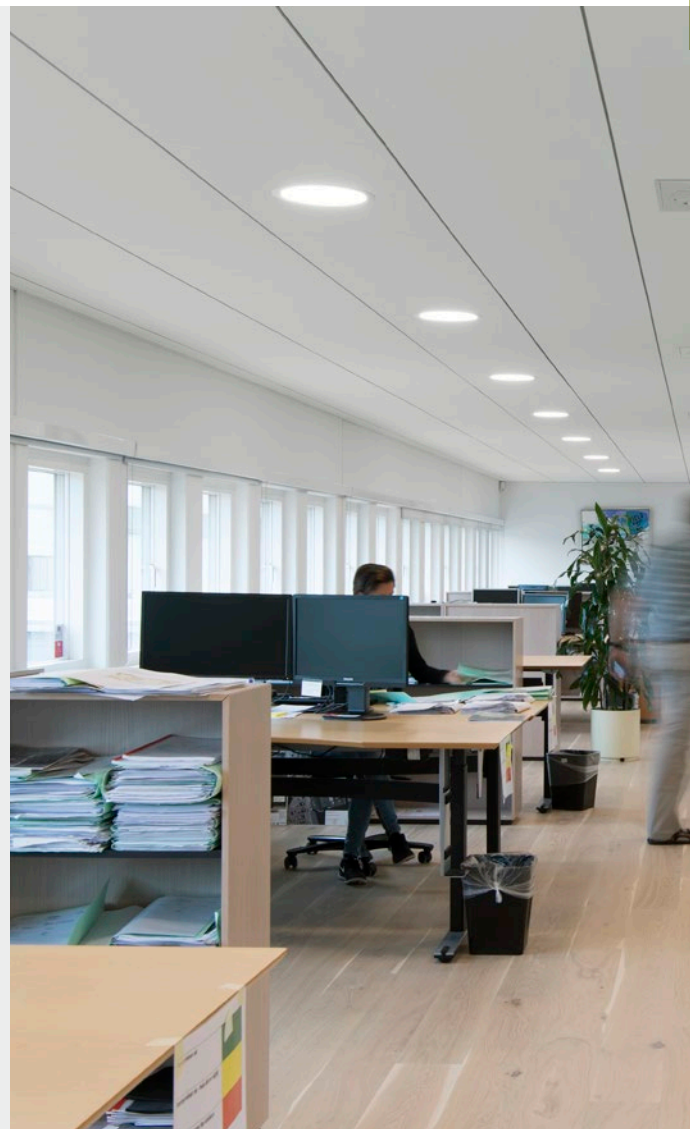
Challenge:

Danish land surveyor LE34 decided to move its premises and relocated to the Katrinebjerg district of Aarhus. The major challenge was to redesign the existing floorplan to make better use of the space, but this required a ceiling that could adapt to different usages.

Solution and results:

Morten Lovén, Architect and Construction Manager for Vision Arkitekter created an open office with hallways and social area in the centre of the space and the desks running along the outer edge of the building. To reduce the distraction caused people talking and walking by the working area, Lovén opted for Rockfon Blanka because of its Class A acoustics and its ability to reflect the daylight and bring more light into the building.

CASE STUDY



People talk with each other - on the phone and informally as they meet - which create noisy disturbances, if you don't consider acoustics in the design.

Arkitema's Senior Project Architect Michael Green



Controlling noise

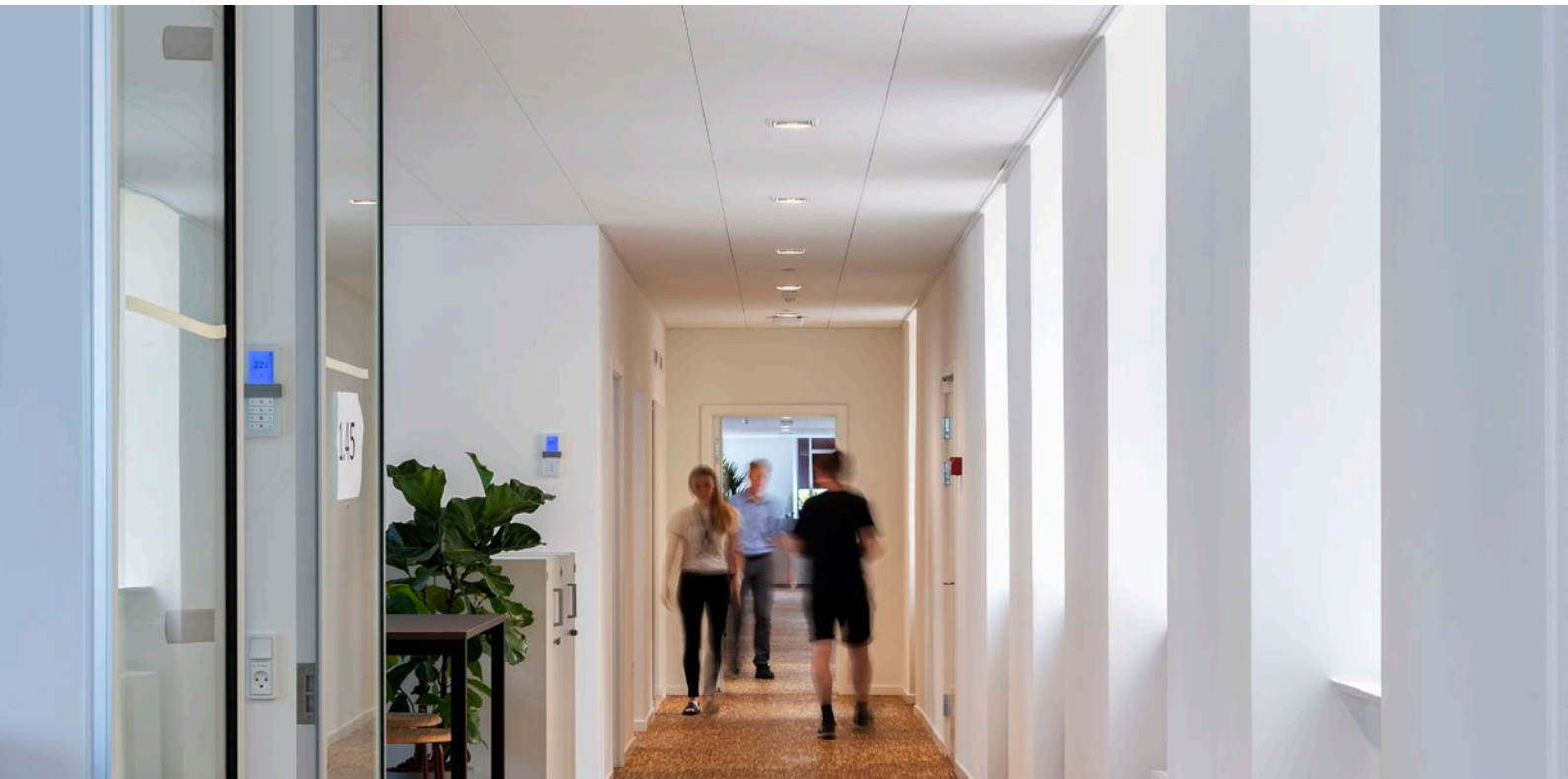
To properly control noise in hallways and breakout areas require embracing both excellent acoustics as well as behavioural and zoning techniques. This combination can help reduce agitation caused by people working in the direct speech-path of people talking, while still fostering collaboration and communication.

By using high-quality sound-absorbing material on the ceiling and walls, while simultaneously distributing workflows that can produce obstructive noises, you can create a layout strategy that will improve concentration without interrupting spontaneous conversation.

Design improves concentration

Hallways and breakout areas design solutions

Hallways are areas in an office that has a lot of foot traffic, adding to that, they often become spaces for improvised meeting, which can distract colleagues that are working. Noise control is important for these spaces as well as keeping the sound from spreading.



Here are some products we recommend



Rockfon Blanka®

Rockfon Blanka comes in a wide variety of dimensions and edges to complement every space. Not only is it our whitest and brightest tile, but it also provides best in class acoustics, so that you can control the noise in this busy space.



Rockfon® Koral™

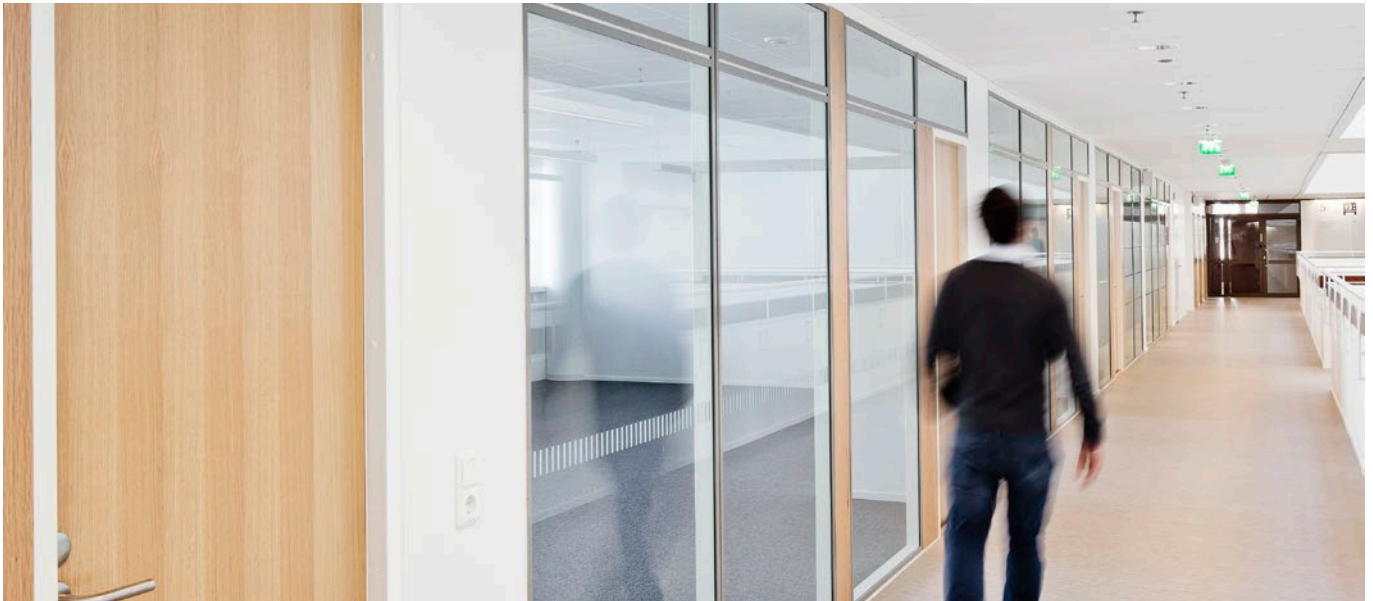
This all-round tile has a Class A sound absorption rating, the highest available on the market, and an attractive white, micro-textured surface. It is available in a selection of standard edges and dimensions, making it a popular and affordable choice.

Product highlight

Rockfon® System Maxispan T24 A,E™

This is a unique, cost-efficient and very stable installation system that is perfect for wide corridors. It gives quick and easy access to technical installations found behind the ceiling. The system spans up to three meters wide, and due to the

strength of the profiles, there is no need for hangers, providing more flexibility and easier maintenance of the services. The system is ideally combined with Rockfon Blanka acoustic ceiling tiles.



Acoustic design tips

Three things you can do to improve the acoustic environment in hallways and breakout areas.

1. Use high-quality sound-absorbing materials to reduce the sound and prevent it from spreading.
2. Have sound barriers separating the hallways from the other working areas.
3. White noise can help blur out the conversations that are going on, making it easier to concentrate.

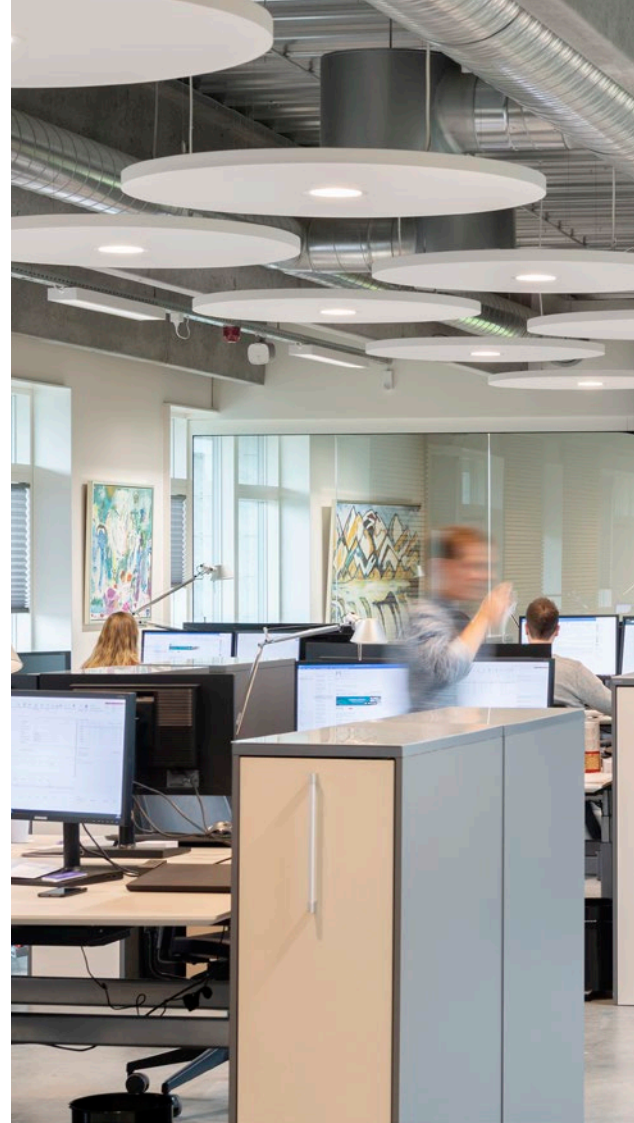


Open plan offices

An inspirational and motivating place to work

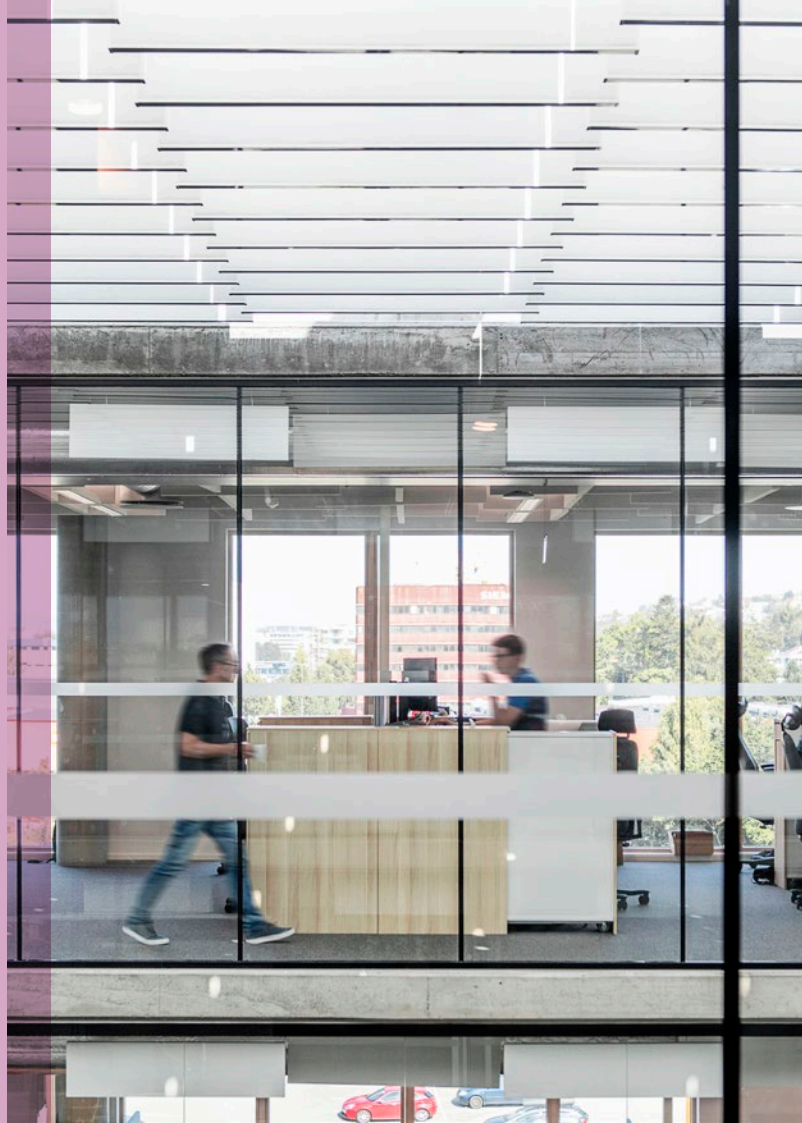
Today, more and more people are seeking healthier workplaces that adopt acoustics.

While the open office plan is designed with the overall purpose of facilitating collaboration and inspiring group interaction, its premise can also make it difficult to concentrate on demanding tasks. The open plan office needs proper sound absorption and sound insulation, placing a great responsibility on office design to ensure spaces for concentration and collaboration.



Only 30% of employees are actually satisfied with the noise levels in their workplace.

Leesman, 2016,
"100, 000+ A workplace effectiveness report"



Concentration and Collaboration

Studies show that workspaces designed to foster group work and collaboration have a positive impact on business processes and costs, but to properly be able to do that is highly dependent on the acoustic quality of the space. Poor acoustics can impair the motivation for greater productivity and collaboration, the very goals that push organisations to create open-plan offices in the first place.

To create a collaborative space means supporting planned and unplanned encounters. As Lennart Nilsson, one of Sweden's foremost acousticians put it:

"In offices, the need for good sound absorption is especially high when working in open-plan offices and for teamwork that requires cross-functional conversations."

CASE STUDY ▲

Lysgården

Trondheim, Norway

Challenge:

Lysgården is a newly built commercial office space that was designed to have a lot of natural light. This meant windows and glass everywhere, both in the atrium and in around the workstations.

Solution and results:

Over 6000 Rockfon acoustics baffles were used to give good sound absorption to counteract the reflective surfaces found all around, creating a healthy indoor climate. Thanks to their stunning aesthetics, the baffles are create an artistic visual in this modern office.

Open-plan Office

Cell-offices

Although the layout might be open-plan employees will automatically transform the space into areas of informal meeting and interaction to support their way of working. This poses a challenge of noise and distractions which the traditional open-plan solution did not consider and from here the small cell-offices emerged.

Today's open-plan spaces now include nooks, phone booths and small office dedicated to impromptu get-togethers that encourage chance encounters and casual interaction. These spaces need to have solid sound absorption and sound insulation so noise can be controlled in the space and conversations don't leave the room.



Open-plan Office

Phone-intensive areas

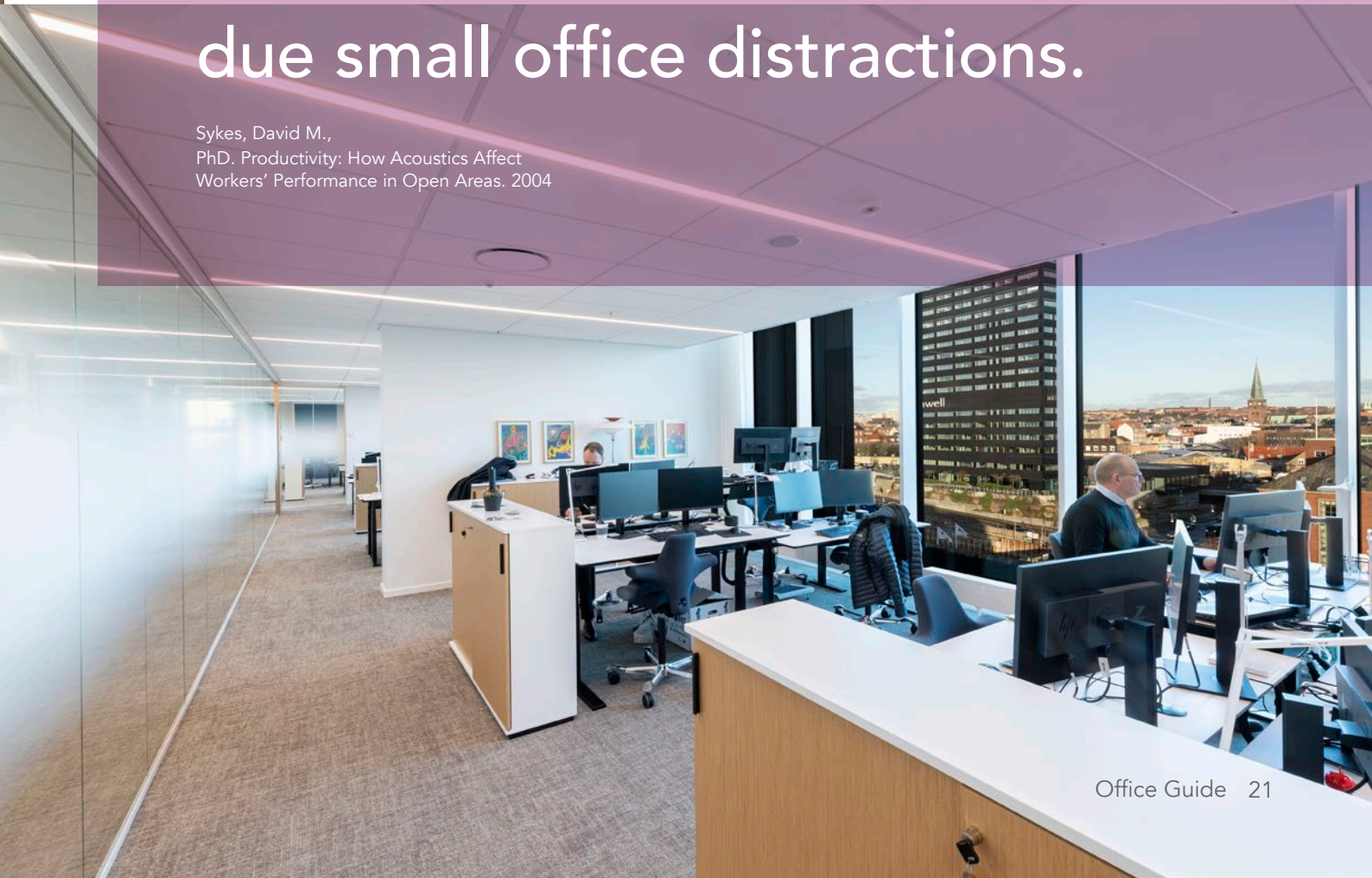
Phone intensive work, like call centres, customer service etc, is often placed in open-plan offices for optimisation reasons. Unfortunately, busy telephone traffic by many people causes noise levels to rise in a space, impeding speech clarity. Working all day in such a noisy area makes it critical that the sound level is comfortable and pleasant to work in. It is also essential to

have optimal sound absorption to control noise. For these busy spaces, this often means having sound absorbing materials both on the ceiling and walls.

High sound-absorbent materials are critical on both ceilings and walls. Also, sound-absorbing screens between desk groups can help control the noise.

Employees can lose up to 20 minutes of concentrated work due small office distractions.

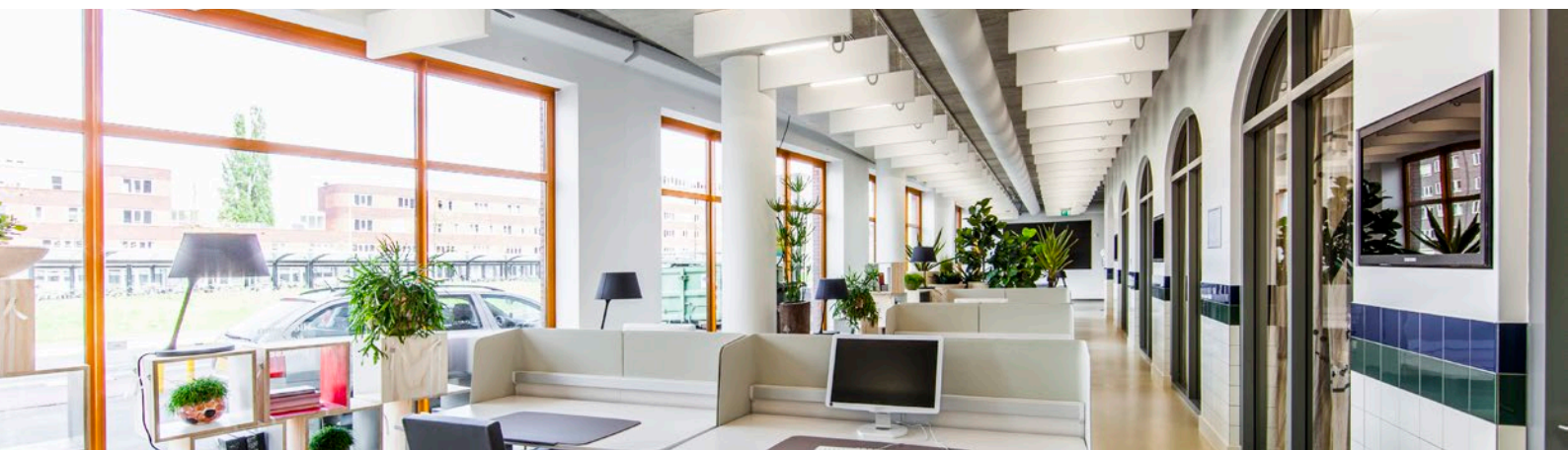
Sykes, David M.,
PhD. Productivity: How Acoustics Affect
Workers' Performance in Open Areas. 2004



Supporting collaboration and concentration

Open plan office design solutions

For optimal sound management, it's essential to understand how sound behaves and travels within a certain space and its impact on employee productivity and wellbeing. Great acoustics are essential to the success of the open office, and that means the right solutions on the ceilings and walls for absorbing noise as well as keeping it from spreading.



Here are some products we recommend



Rockfon Blanka® Activity

Rockfon Blanka Activity is designed for speech intelligibility. The thicker acoustic ceiling tile has high absorption, which makes it ideal for controlling the sound level at low frequencies and busy areas like phone-intensive areas.



Rockfon Eclipse®

This innovative and aesthetically pleasing frameless acoustic ceiling island offers excellent sound absorption. This is great complement to an industrial style design office or even installing below a suspended ceiling for additional sound absorption.



Rockfon Eclipse® wall panel

These aesthetic, frameless acoustic wall solutions are perfect for dynamic open offices where a lot of verbal communication is a regular occurrence. The wall panels are ideal for adding additional sound absorption to bring the noise level down.



Rockfon® Universal™ Baffle

Perfect for industrial style design, this creative and innovative acoustic solution creates a unique design and is available in 33 inspiring colours. The two end-capped (2F) or fully framed edges (4F) keep your baffle protected.



Acoustic design tips

Three things you can do to improve the acoustic environment in open-plan offices.

1. Ensure that you have thick and dense sound-absorbing materials on the ceilings to ensure speech clarity especially in the low frequencies.
2. Use high-quality sound-absorbing materials on the walls.
3. Have soft material on the floors to counteract impact sounds.

Small offices

The best of both worlds

A small office is a great solution for people that carry out sensitive assignments that require a private setting or a place for employees to go to when their work needs focus and concentration. These spaces should ideally have a combination of both high-quality sound absorption and sound insulation.

Built for confidentiality and concentration

A conversation that happens behind closed doors is not always private. Why? Sound can travel from one space to another and this reduces workplace confidentiality and it can disturb the people around. Sound insulation is all about keeping what is said in the room, in that space - it is the prevention of sound entering or leaving a room, which safeguards privacy.

Sundtkvartalet

Oslo, Norway

Challenge:

Sundtkvartalet is a large office building where some of the larger tenants work with sensitive information, which required that the office building had an important focus on privacy.

Solution and results:

Rockfon® Sonar® dB is installed in most offices in Sundtkvartalet. It provides enhanced room-to-room sound insulation, ensuring that noise does not travel from one office to another, and it delivers a high level of sound absorption, creating a comfortable acoustic climate.

CASE STUDY ►

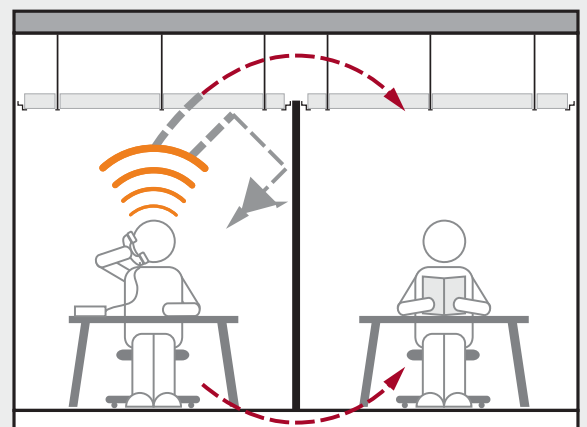




Better together

Sound absorption and sound insulation go hand-in-hand; in fact, there is a direct link between the two. When the sound source room has a ceiling with high sound absorption, it creates a lower sound pressure in the room, which decreases the amount of sound transmitted to the adjacent space. If the room also has good sound insulation that lowers the sound transmission even further and enhances the acoustic atmosphere in the small office.

To get an even better sound absorption level in small offices, a good idea can be to add additional acoustic solutions on the wall.



Confidentiality and privacy

Small office acoustic design

For small offices to have real confidentiality and privacy, it is essential to think about the shared strength of sound absorption and sound insulation. When a room combines the two acoustic elements, it reduces the amount of noise that is transferred from one room to another. This is vital to create a space where people can concentrate and speak in absolute security.

Here are some products we recommend



Rockfon® VertiQ® wall panel

This durable wall panel is highly sound absorbent and impact resistant. It comes in different colours and can be installed both vertically or horizontally.



Rockfon® Soundstop™

This acoustic barrier reduces noise transfer in ceiling and floor plenums and is ideal to combine with our dB range.

Acoustic design tips

Three things you can do to improve the acoustic environment in small offices.

1. Ensure that you have thick and dense sound-absorbing and sound insulating materials on the ceilings.
2. Use high quality sound-absorbing materials on the walls.
3. Have soft material on the floors to improve sound absorption.

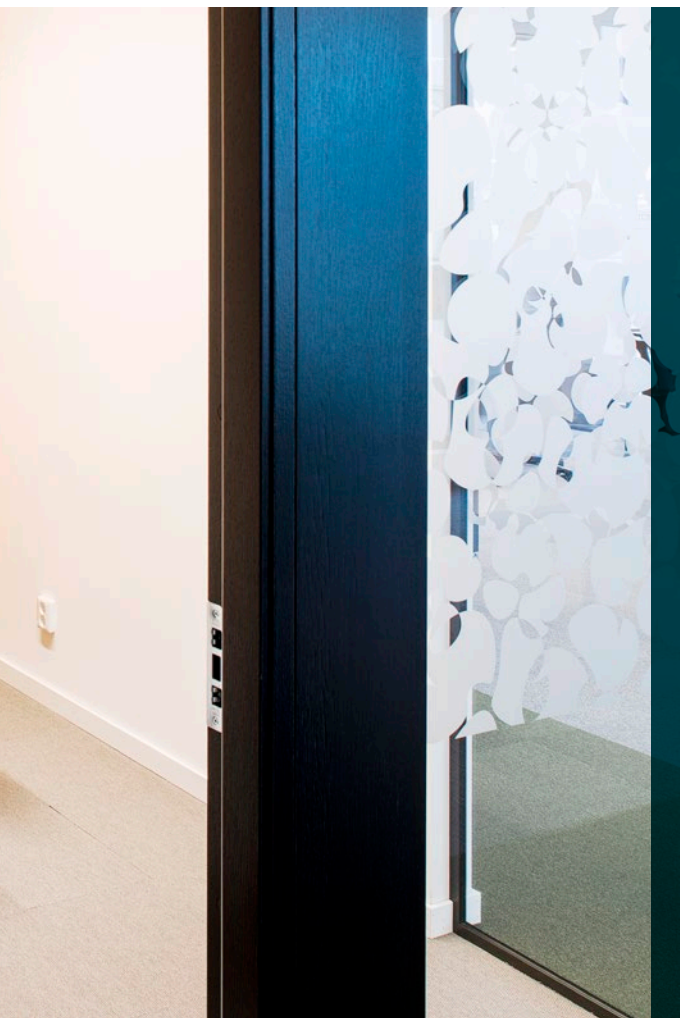


Product Highlight

Rockfon dB

Our dB range of high absorbent acoustic tiles has a stone wool core with a high-performance membrane on the back which reduces the transmission of noise from room to room.

The varying tiles provide increasing levels of sound insulation and sound absorption so you don't need to compromise on concentration and privacy.



Room-to-room
sound transmission
can **reduce single
person office
work productivity
up to 7%.**

Lloyd's Register Consulting - Energy A/S,
Sound Insulation and Productivity 2017

Meeting rooms

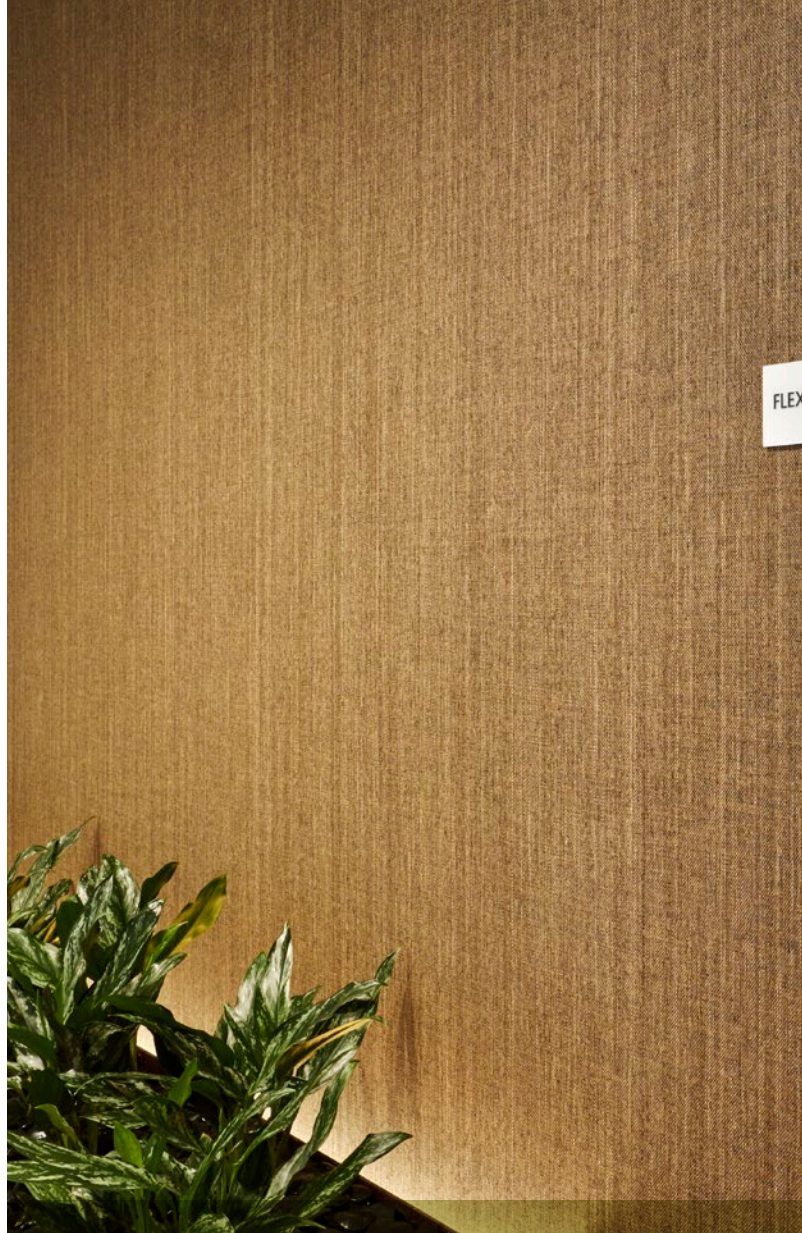
Productive collaboration

Meeting rooms are an indispensable feature in the office space and a great space to foster creativity and cooperation. Meeting rooms are often based in the centre of the office with surrounding glass walls and multiple IT equipment. However, speech can bounce off the walls and together with the noise from the projector this can hinder speech clarity in the room. This heightens the need for acoustics to be properly designed in a meeting room and it places an extraordinary need to have high-quality sound absorption, but also sound insulation, so that people feel safe in the privacy of the meeting room.

Good sound absorption and sound insulation

To promote collaboration and the exchange of ideas, it is vital to be able to properly hear what is being said. Noise in meeting rooms can easily reverberate off the hard surfaces, like the walls, floors and furniture, found in the room. This places an extraordinary need to have good quality sound absorption.

Because meeting rooms are generally placed next to the open office where people are working, good sound insulation is key so that the discussions in the meeting room don't disturb the workplaces nearby.



15%
of conversational
distractions can
decrease by
bettering acoustical
conditions.

Sykes, David M., PhD. Productivity: How Acoustics Affect Workers' Performance in Open Areas. 2004



Bialmed

Pisz, Poland

Challenge:

The Polish company Bialmed was looking for a new headquarter that would have a great acoustic environment, with high sound absorption, for both its open-plan offices and meeting rooms.

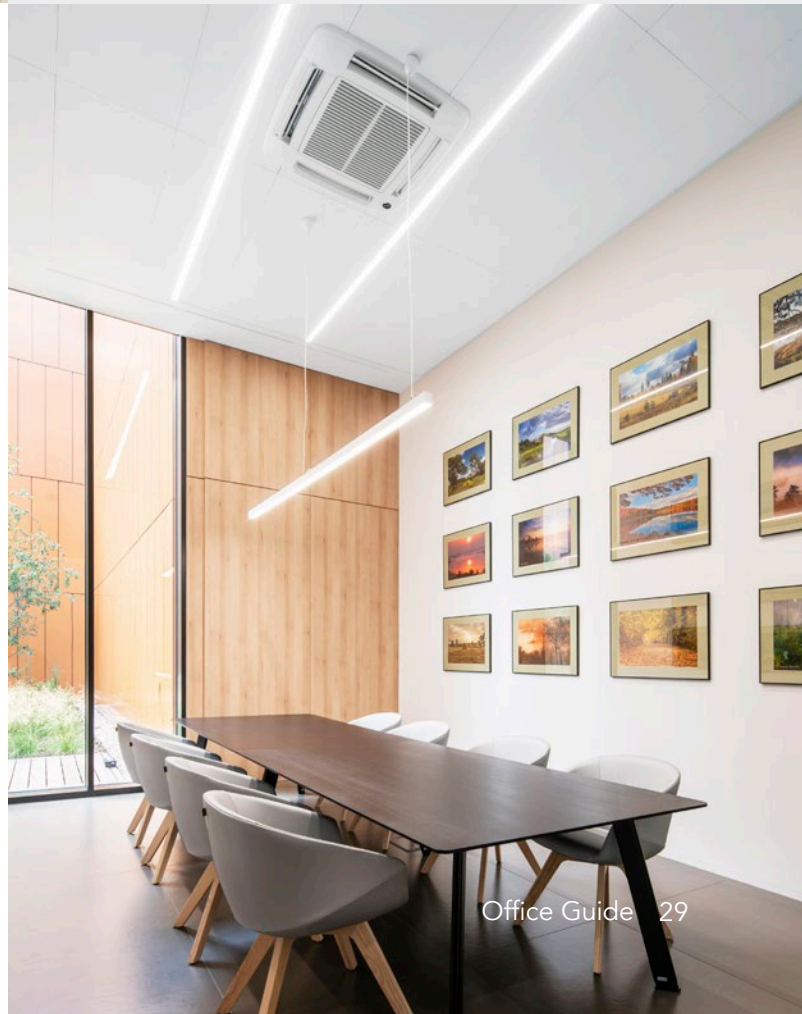
Solution and results:

Rockfon® Mono® Acoustic and Rockfon Blanka® were chosen because of their excellent acoustic properties and elegant, subdued interiors that perfectly matched what the architect was looking for when designing the small offices and meeting rooms. The aim was to reduce sound reverberation and optimise the light reflection within the rooms.

CASE STUDY ▼

Get in the right headspace with colour

Whether we realise it or not, Colours communicates information that influences us and can trigger specific emotions that get us into a specific headspace. Colours are a great way to set the tone in a room and get people in the mood to participate and exchange ideas. It is a fantastic way to breathe life into an otherwise dull meeting room and spark a creative atmosphere.



A communication space

Meeting room design solutions

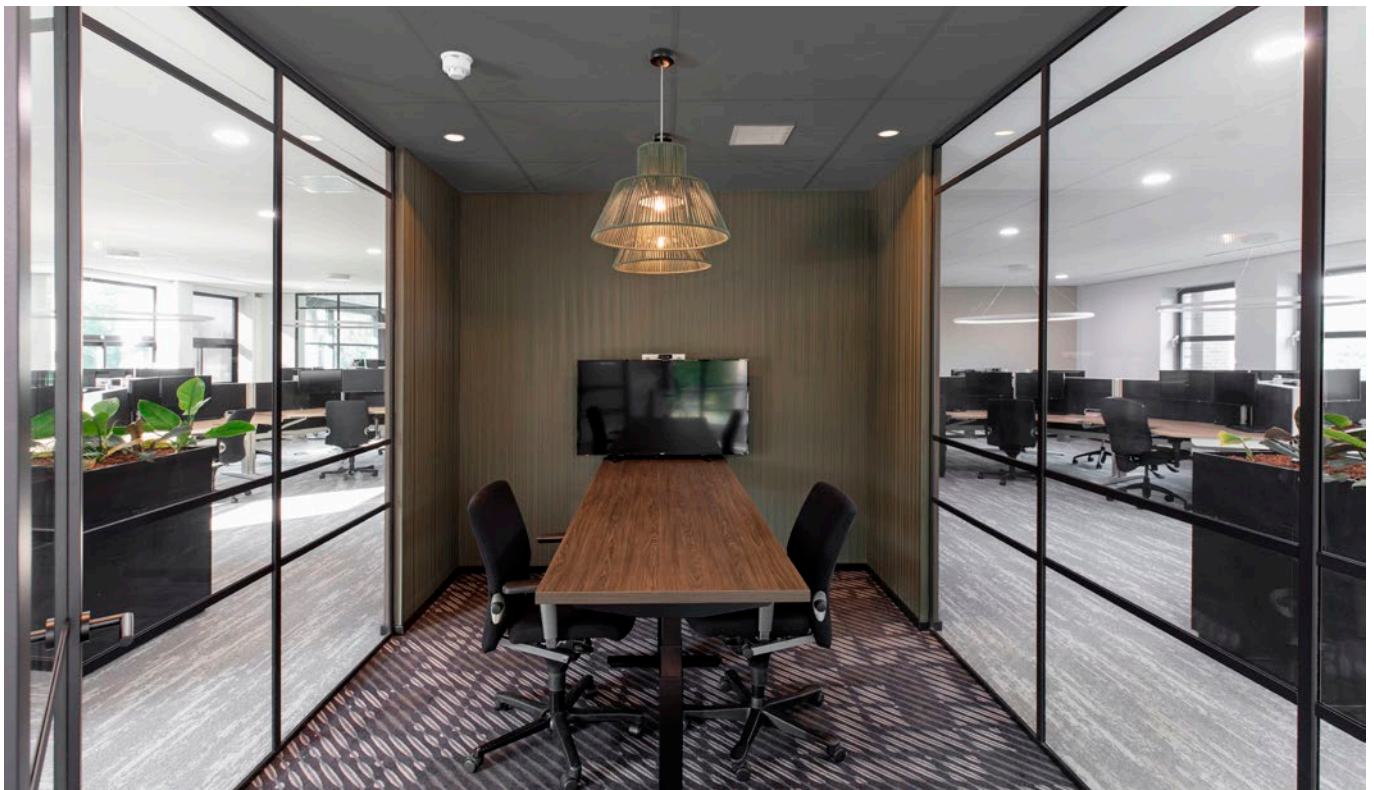
Meeting rooms are key spaces for the interchanging of ideas, but to be able to engage, it is important to be able to hear what is said. Avoiding echoing from sound bouncing of the walls is important as well as ensuring speech clarity and good sound insulation.

Product Highlight

Rockfon Color-all®

Rockfon Color-all is a versatile acoustic ceiling solution that comes in 34 exclusive colours, everything from subtle to bold long lasting colours.

It is available in concealed, semi-concealed and visible grid solution and it in variety of tile sizes, giving you total design freedom.



Acoustic design tips

Three things you can do to improve the acoustic environment in meeting rooms.

1. Ensure that you have thick and dense sound-absorbing and sound insulating materials on the ceilings to avoid sound from leaving the room.
2. Use high-quality sound-absorbing materials on the walls to avoid echoing.
3. Have soft material on the floors to improve sound absorption.



Here are some products we recommend



Rockfon Blanka®

Rockfon Blanka gives you the best acoustic properties that ensure a comfortable noise level. The deep matt and super white surface has high light reflection and light diffusion properties, helping you capitalise on natural light.



Rockfon dB

Our dB range combines high sound absorbence with high sound insulation. Ideal for rooms that needs privacy and want to control the noise level in the room.



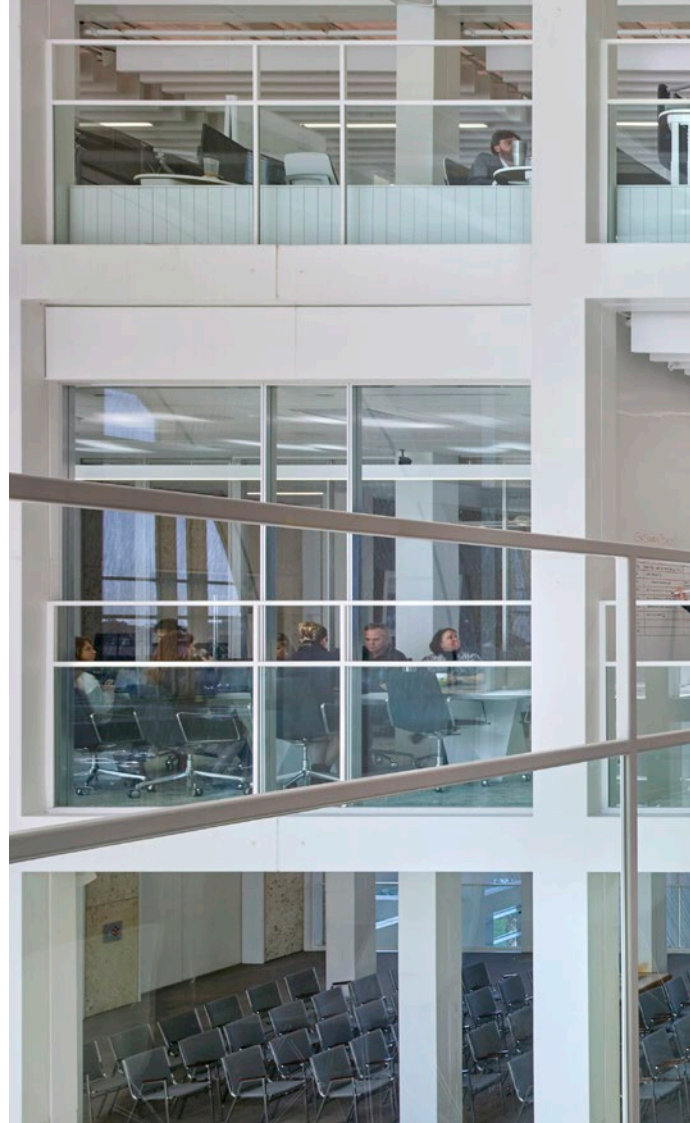
Rockfon® VertiQ® wall panel

This durable wall panel is highly sound absorbent and impact resistant. It comes in different colours and can be installed both vertically or horizontally.

Canteen

Unwind and enjoy

An office canteen is a busy place where all the employees gather to socialize and relax or maybe even to have informal lunch meetings. This combination of a space for food preparation which is often open, as well as a busy space with lots of people, present a unique challenge of acoustic and hygiene.





A clean place to eat

Hygiene is critical when it comes to food preparation, which is why building materials used in kitchens have to be cleanable – but did you know that acoustics are equally important? Kitchens are full of hard surfaces, the tiled flooring and metallic surface, which are great for cleaning and keeping a sterile environment but they all reflect sound. Having a dependable acoustic ceiling that can withstand regular cleaning and disinfection is key for the wellbeing of the people working in the kitchen.

A place to come together

The canteen is a social hangout for employees and around lunchtime, it becomes very busy and noisy. All the clamouring leads to a lot of verbal activity, this combined with the sounds of knives and forks, plates and glasses hitting the tables can cause the noise levels to quickly escalate, creating a space that is uncomfortable and loud.

92% of a company operating costs linked to personnel expenses. Optimizing the indoor climate enhances productivity and increases returns.

International WELL Building Institute

Great hygiene. Now that sounds good!

Canteen design solutions

The busy office canteen requires a thoughtful acoustic design, both in the area where people eat, but equally where the food is prepared. This calls for an acoustic ceiling that can meet the challenge of providing acoustic comfort, and that is durable enough for regular cleaning and disinfection.



Here are some products we recommend



Rockfon Blanka®

Rockfon Blanka gives you the best acoustic properties that ensure a comfortable noise level. The deep matt and super white surface has high light reflection and light diffusion properties, helping you capitalise on natural light.



Rockfon® Hygienic™

Rockfon Hygienic is a non-hygroscopic, and durable ceiling perfect for food preparation areas that require frequent cleaning. By choosing a ceiling solution that is resistant to mould and bacteria, you ensure a safe space.



Rockfon® VertiQ® wall panel

This durable wall panel is highly sound absorbent and impact resistant. It comes in different colours and can be installed both vertically or horizontally. Its perfect for busy and loud canteens.



Rockfon Eclipse®

Rockfon Eclipse is a beautiful, frameless acoustic island that comes in a variety of geometric shapes that can be installed both on the ceiling and the walls. They are perfect for improving sound absorption, in combination with a fun design. These can be suspended alone or under a traditional acoustic ceiling.



TrueLime

Breda, Netherlands

Challenge:

TrueLime's was looking to move into a new space. A building that they could really shape and create a great indoor climate in, so they opted for a newly renovated building that they could make into their own.

Solution and results:

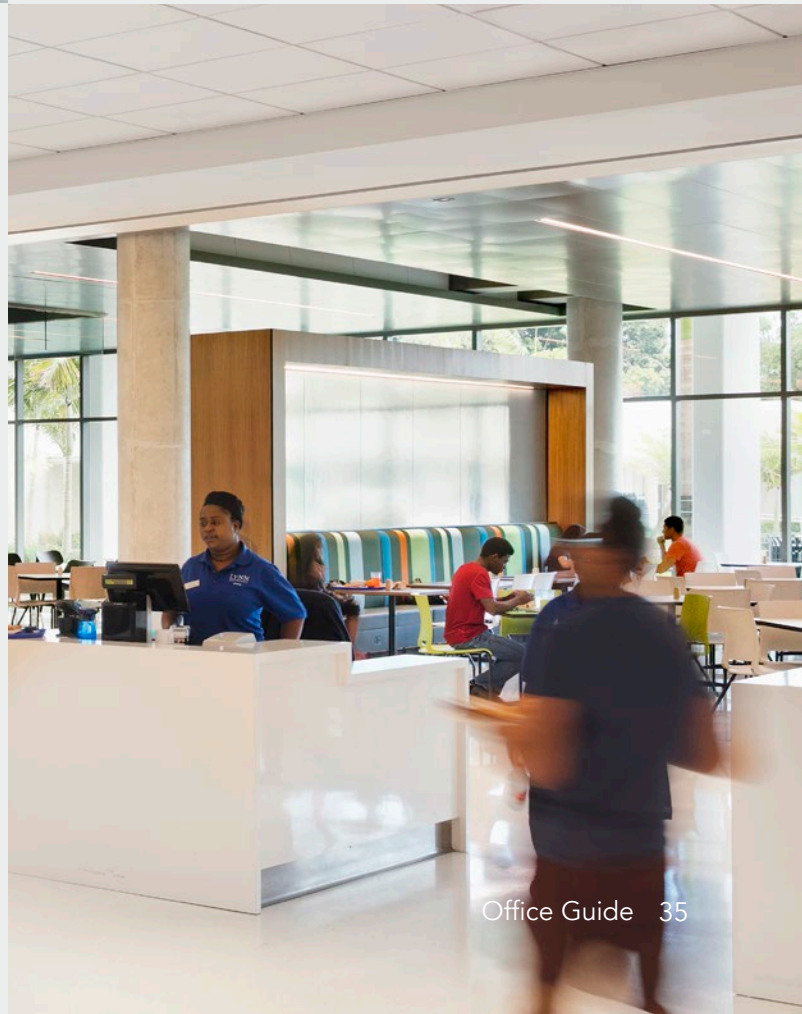
When renovating the building there was a focus on creating a canteen where people could come together. A lot of care was put into the design of the room to ensure that atmosphere communicated exactly what the interior designer was looking for. They chose to bring the earth tones of the design to the fifth wall wall using Rockfon Color -all® Hemp, to help get the atmosphere just right.

◀ CASE STUDY

Acoustic design tips

Three things you can do to improve the acoustic environment in the canteen.

1. Use sound-absorbing solutions that meet the most rigorous hygiene codes and safety regulations and that are resistant to mould and bacteria.
2. Use highly sound-absorbing ceilings and wall solutions to control the noise levels.
3. Play with the design of the ceiling and walls to create a warm and inviting atmosphere in this large space.



Parking garages

A forgotten space

Garages are perhaps the least glamorous part of designing a commercial building. As such, they don't receive a lot of attention, which is ironic, because they can often be the first touchpoint a person has with the building. Acoustic ceilings can play an important role in creating a positive experience and improving a building's energy efficiency.



KPMG

Frederiksberg, Denmark

Challenge:

The idea behind the building is to equip KPMG for future requirements about sustainability. The headquarters was a complete design, including a parking garage.

Solution and results:

With very low energy consumption and strict requirements for reducing environmental impact, the building supports KPMG's Corporate Social Responsibility targets for reduced CO2 emissions and is included in the European Green Building Program, whose goal is to improve the business efficiency of buildings. To help achieve this goal, 3XN architects choose to use Rockfon® Cosmos™ in the parking garage.



Do more with your acoustic solutions

Better insulation of buildings is a profitable way to reduce CO₂ emissions; it is a low hanging fruit in combating climate change. Insulation reduces today's unnecessary waste of fossil fuels from buildings that are responsible for 40% of the EU energy consumption and a major contributor to human-made CO₂ emissions. Acoustic ceiling solutions can both enhance the acoustic atmosphere while simultaneously contributing to the energy efficiency of the building.

Acoustic safety

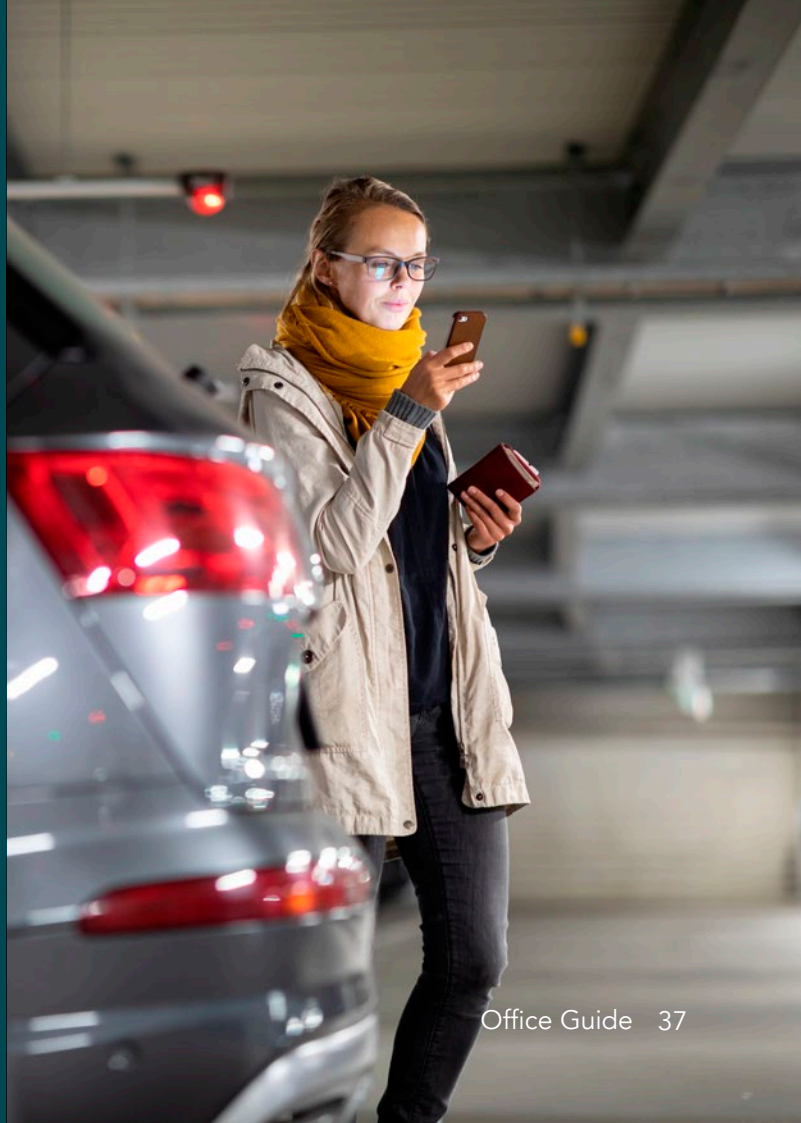
A motorcycle can emit sound up to 95 dB, and the hard, reflective surfaces of garages compound its effect when left untreated with sound absorption. This creates both an uncomfortable experience as well potentially dangerous situation, increasing the chances for accidents due to poor audio awareness.

To offset the negative indoor climate, it is important to consider acoustic solutions in the design of garages.



Excessive reverberation creates a terrible indoor environment. Using sound absorbing material on the ceiling is key to offsetting this challenge.

Pascal van Dort,
Global Acoustics Ambassador



More than just acoustics

Garage design solutions

The hard surfaces found in garages create an uncomfortable sound environment and could potentially increase the probability of an accident. Sound absorption is important as well as solutions that can insulate to the stories above increasing the energy efficiency of the building.

Here are some highlight products we recommend

Rockfon® Cosmos™

Rockfon Cosmos is a white acoustic ceiling tile that has an extremely high sound absorption, Class A. This tile is ideal for spaces with high noise levels and its light weight makes it easy to install.

Because of the thickness of the tile, it also includes thermal insulation properties, improving the energy efficiency of a building.

Rockfon® Facett™

Rockfon Facett industrial ceiling tiles have excellent sound absorption, thermal insulation and fire performance capabilities and is ideal for parking garages. Its lightweight makes it quick and easy to install directly to the soffit.






















Acoustic design tips

Three things you can do to improve the acoustic environment in the garage.

1. Ensure that you have thick and dense sound-absorbing and sound insulating materials on the ceilings
2. Have acoustic attenuation and sound insulation between the parking basement and the floor above.
3. Insulate you garage with acoustic ceiling solutions to improve energy efficiency.

Office product specs and where to use them









Let's take a final look at the products and rooms that you've just seen

Properties	 Rockfon® Mono® Acoustic	 Rockfon Blanka®	 Rockfon Blanka® Activity	 Rockfon Blanka® dB 35	 Rockfon Blanka® dB 41	 Rockfon Blanka® dB 43
 Sound absorption	α_w : up to 1.00 (Class A)	α_w : up to 1.00 (Class A)	α_w : 1.00 (Class A)	α_w : 0.80 (Class B)	α_w : 0.90 (Class A)	α_w : 0.90 (Class A)
 Direct sound insulation	R_w = 22 dB	-	-	R_w = 19 dB	R_w = 21 dB	R_w = 22 dB
 Room to room sound insul.	-	-	-	D_{nfrw} = 35 dB with Acoustimass = 45* dB with Soundstop 30 dB = 50* dB	D_{nfrw} = 41 dB with Acoustimass = 52* dB with Soundstop 30 dB = 55* dB	D_{nfrw} = 43 dB with Acoustimass = 54* dB with Soundstop 30 dB = 56* dB
 Surface durability	-	Durability and dirt resistance. Wet-scrub resistance	Durability and dirt resistance. Wet-scrub resistance	Durability and dirt resistance. Wet-scrub resistance	Durability and dirt resistance. Wet-scrub resistance	Durability and dirt resistance. Wet-scrub resistance
 Impact Resistance	-	Class 3A (Fastening clip)	-	-	-	-
 Light reflection	87% light reflection >99% light diffusion	87% light reflection >99% light diffusion	87% light reflection >99% light diffusion	87% light reflection >99% light diffusion	87% light reflection >99% light diffusion	87% light reflection >99% light diffusion
 Cleaning	Vacuum	Vacuum, damp cloth	Vacuum, damp cloth	Vacuum, damp cloth	Vacuum, damp cloth	Vacuum, damp cloth
 Hygiene	Stone wool provides no sustenance to microorganisms					
 Humidity and sag resistance	Up to 100% RH					
 Reaction to fire	A2-s1,d0	A1	A1	A2-s1,d0	A2-s1,d0	A2-s1,d0
 Environment	Recyclable					

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

+(Twice a year) - Low pressure foam cleaning - High pressure cleaning: Max. 80 bar, min. 1 metre distance, water spread at 30° angle. The tiles should be clipped and sealed into the grid with a silicone sealant containing fungicide. - Chemical resistance: resistant to diluted solutions of ammonia, chlorine, quaternary ammonium and hydrogen peroxide.

++ Rockfon VertiQ C mounted in Rockfon System VertiQ C Wall has been tested for impact resistance in accordance with DIN 18032.

 Rockfon Blanka® dB 46	 Rockfon Color-all®	 Rockfon® Koral™	 Rockfon® Hygienic™	 Rockfon Eclipse®	 Rockfon® Universal™ Baffle	 Rockfon Eclipse® wall panel	 Rockfon® VertiQ®
α_w : 0.90 (Class A)	α_w : 0.95 (Class A)	α_w : up to 1.00 (Class A)	α_w : 1.00 (Class A)	A_{eq} (m ² /item)	A_{eq} (m ² /item) C, H*	A_{eq} (m ² /item)	α_w : 1.00 (Class A)
R_w = 25 dB	-	-	-	-	-	-	-
D_{nrfw} = 46 dB with Acoustimass = 55* dB with Soundstop 30 dB = 58* dB	-	-	-	-	-	-	-
Durability and dirt resistance. Wet-scrub resistance	-	-	Durability and dirt resistance.	-	-	Durability and dirt resistance. Wet-scrub resistance	-
-	-	-	-	-	-	-	Impact resistant ++
87% light reflection >99% light diffusion	Colour- dependent	86%	85%	87% light reflection (rear side: 79%) >99% light diffusion	White (77%) Charcoal (4%) Color- all (Colour dependent)	87% light reflection (rear side: 79%) >99% light diffusion	White 72% Lightgrey 61% Grey 33% Black 5%
Vacuum, damp cloth	Vacuum	Vacuum, damp cloth	Vacuum, damp cloth, dry steam cleaning+	Vacuum, damp cloth	Vacuum	Vacuum, damp cloth	Vacuum
Stone wool provides no sustenance to microorganisms							
Up to 100% RH							
A2-s1,d0	A1 Rockfon Color-All Mercury: A2-s1,d0	A1	A1	A1 Rockfon Eclipse Rectangle 2360: A2-s1,d0	A2-s1,d0	A1 Rockfon Eclipse Rectangle 2360: A2-s1,d0	A2-s1,d0
Recyclable							





The right product in the right space

People can't work and be productive if they can't concentrate. Wellbeing is a central tenet of the workspace, and to promote a strong indoor climate, you need great acoustics as much as you need a stunning design. Please have a look at our overview to see what products we recommend for the perfect combination of style and acoustic comfort.



RECEPTION AREA

Noise control

-  Rockfon Blanka®
-  Rockfon Color-all®
-  Rockfon Eclipse®
-  Rockfon® Mono® Acoustic



HALLWAYS AND BREAKOUT AREA

Noise control

-  Rockfon Blanka®
-  Rockfon® Koral™



OPEN-PLAN OFFICE






Speech clarity & Noise control & Privacy

- | | |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  Rockfon Blanka® |  Rockfon® Universal™ Baffle |
|  Rockfon Blanka® Activity |  Rockfon Eclipse® wall panel |
|  Rockfon Blanka® dB |  Rockfon® VertiQ® wall panel |
|  Rockfon Color-all® |  Rockfon® Soundstop™ |
|  Rockfon Eclipse® | |



SMALL OFFICE

Sound insulation & Privacy

- | | |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|  Rockfon Blanka® |  Rockfon® VertiQ® wall panel |
|  Rockfon Blanka® dB |  Rockfon® Soundstop™ |
|  Rockfon Color-all® | |



MEETING ROOM

Noise control & Speech clarity

 Rockfon Blanka®

 Rockfon Blanka® dB

 Rockfon Color-all®

 Rockfon Koral™

 Rockfon Eclipse®

 Rockfon® VertiQ® wall panel



CANTEEN

Noise control & Hygiene

 Rockfon Blanka®

 Rockfon Color-all®

 Rockfon® Koral™

 Rockfon® Hygienic™

 Rockfon Eclipse®

 Rockfon® VertiQ® wall panel



PARKING GARAGES

Noise control & Energy efficiency

 Rockfon® Cosmos™

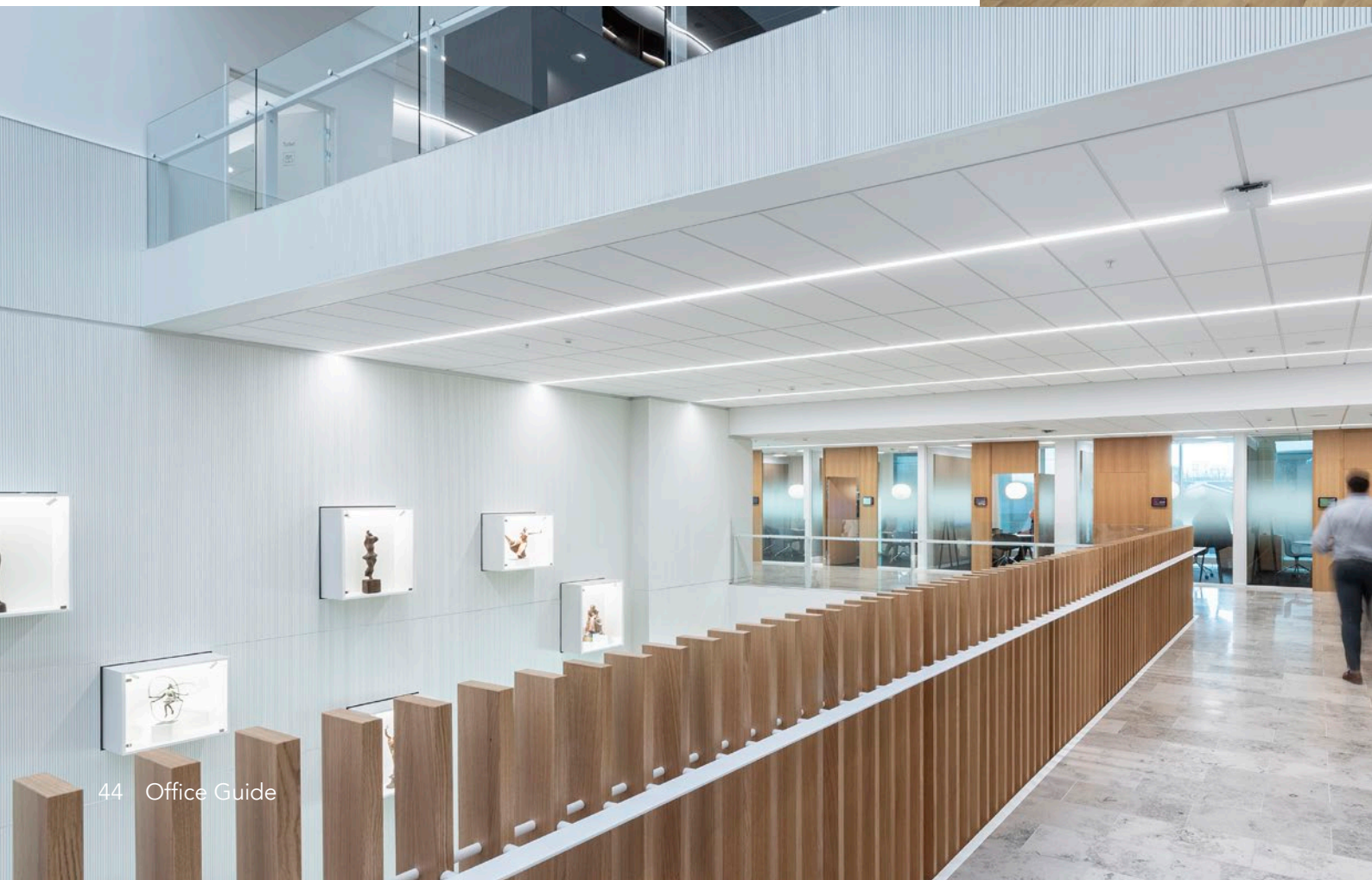
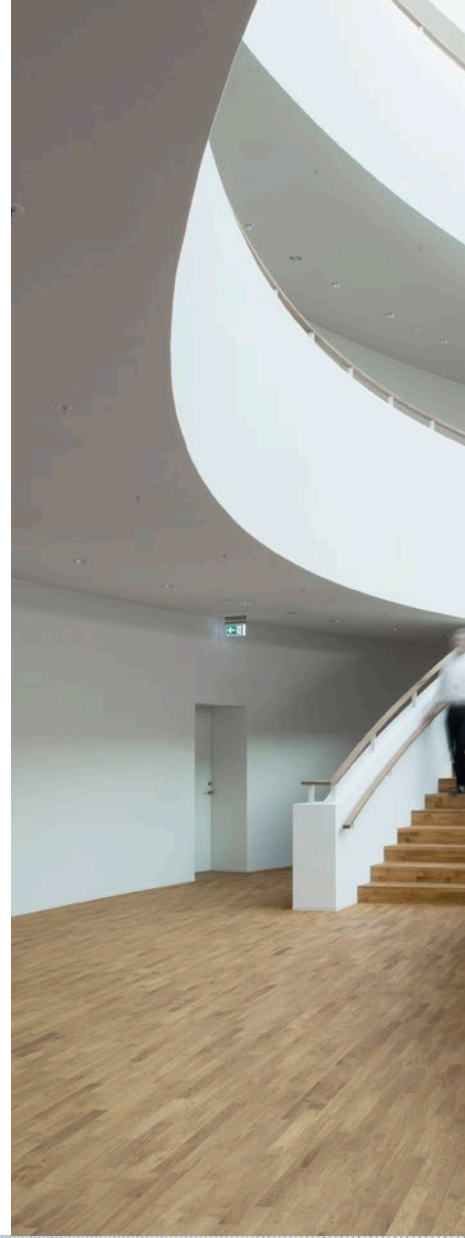
 Rockfon® Facett™



Rockfon® Mono® Acoustic - as stunning as it sounds

Create comfortable and elegant spaces that truly inspire. Rockfon Mono Acoustic has a bright white surface that's flexible enough to bend or curve it, so you can install it on any ceiling or wall, bringing great seamless acoustic design to any spaces.

A unique seamless and flexible acoustic solution perfect for stunning office spaces that want that little extra. Integrate it on both ceilings and walls and do not worry about playing with the forms of your space - Rockfon Mono Acoustic lets you curve the surface of the acoustic panel to as little as a 1500mm radius.





The power of **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 busy offices, where sound needs to be controlled.

Natural light makes workers more productive and with the Rockfon Blanka surface, you can optimise daylight even further. The unique surface lets you draw natural light 11% deeper into a space and contribute to energy savings of up to 23%.





The influence of **Rockfon Color-all®**

Want to enhance wellbeing and ambience by using colour? Our coloured ceilings and wall solutions don't just reduce noise, they also help create unique spaces. The range comes in 34 exclusive colours and that inspire and enhance your interior design, giving you the possibility to set the tone in the office space.

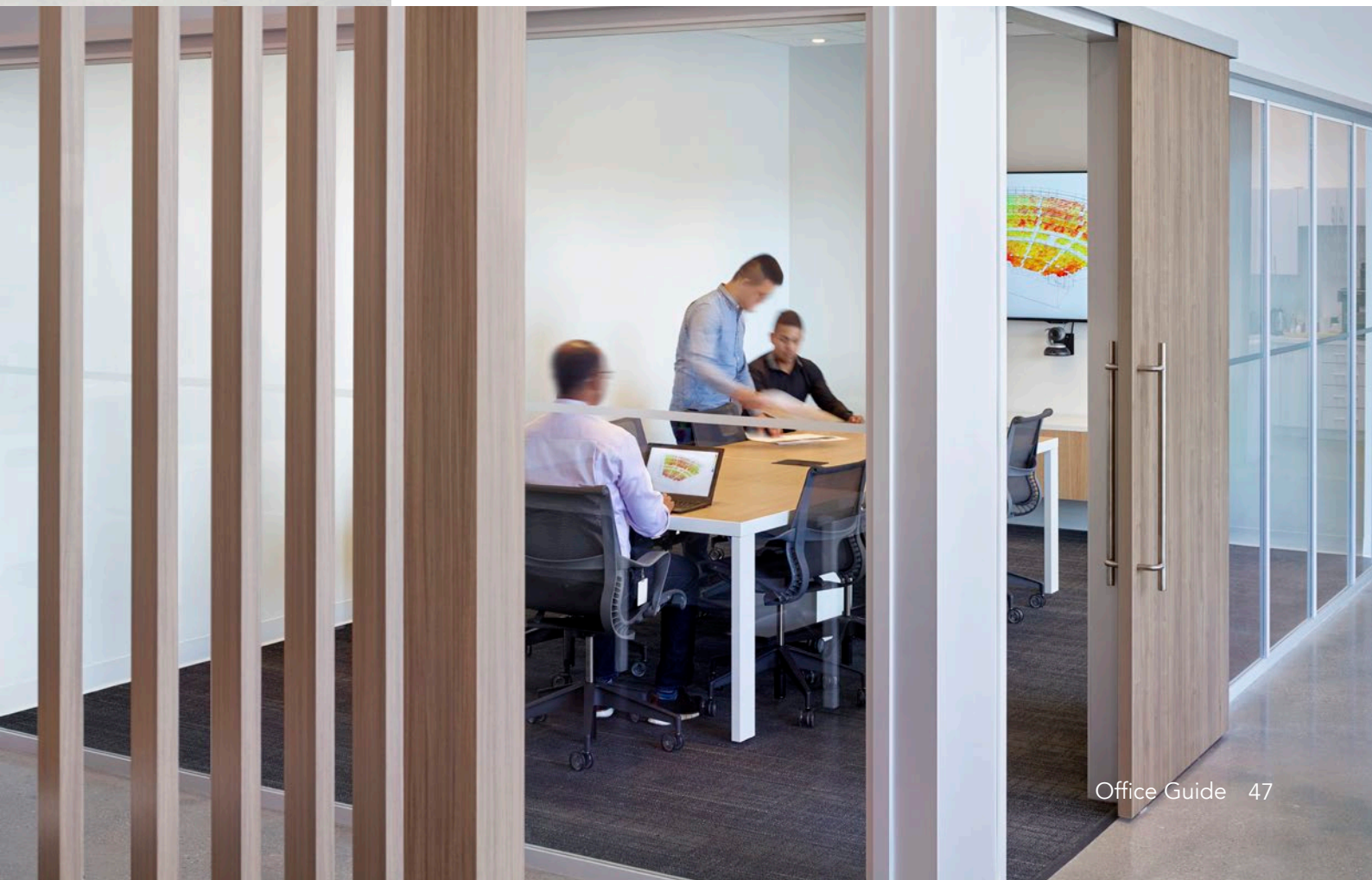
- Choose from everything from subtle to bold long-lasting colours
- An extensive range of semi-concealed and concealed edges in a large variety of module sizes
- Bring a splash of colour to the walls and set the tone for the classroom and make your design standout



Rockfon dB - the best of both worlds

Want to promote enhanced room to room sound insulation with a high level of sound absorption? The Rockfon dB range is the perfect solution to create spaces for concentration, privacy and confidentiality. The solution comes in different thicknesses depending on the level of confidentiality need. It's also available in our concealed, semi-concealed and visible grid solutions for a variety of design looks.

- A unique combination of both high sound insulation and sound absorption
- It's available in multiple edges and dimensions
- It's easy to mix the dB products with our regular acoustic ceiling tiles ensuring the same look throughout the building



We are your sustainability partner

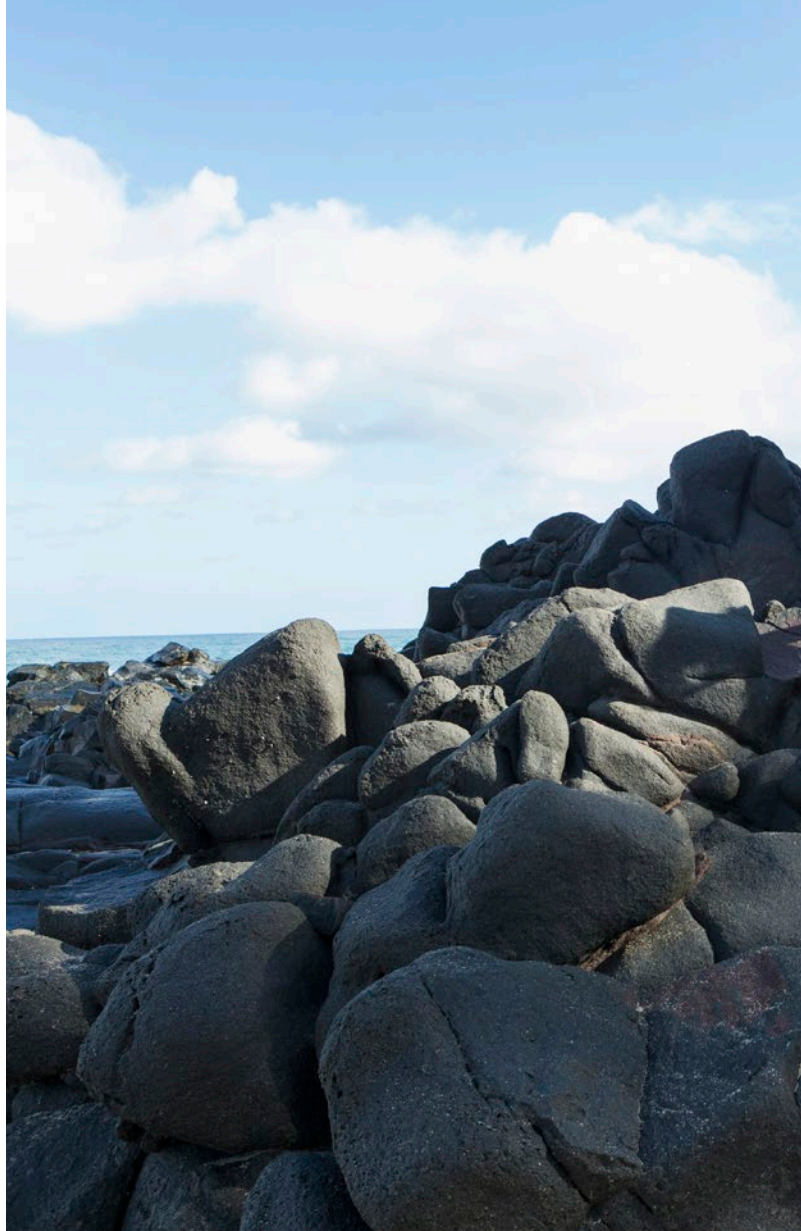
Sustainability sits at the heart of our research and development. It's why we use natural stone, constantly reduce our carbon footprint and recycle to look after our planet and our people.

Commercial buildings are an expensive investment, leading many property developers to choose sustainable building materials to stabilize the value and lifecycle of their building. Building certifications like LEED, BREEAM, DGNB or WELL are growing in popularity, and luckily our products contribute positively, and we have all documentation readily available.

Stone wool is a fully sustainable closed-loop product. It can be recycled again and again without any degradation in quality.

We offer all our customers to recycle old stone wool ceiling tiles and cut-offs from installation, helping make a meaningful contribution to a greener planet.

Visit our webpage for more information about our takeback scheme.



**159 000
tonnes of
stone wool
were collected
for recycling
in 2019.**



Otto Nielsens Vei 12

Trondheim, Norway

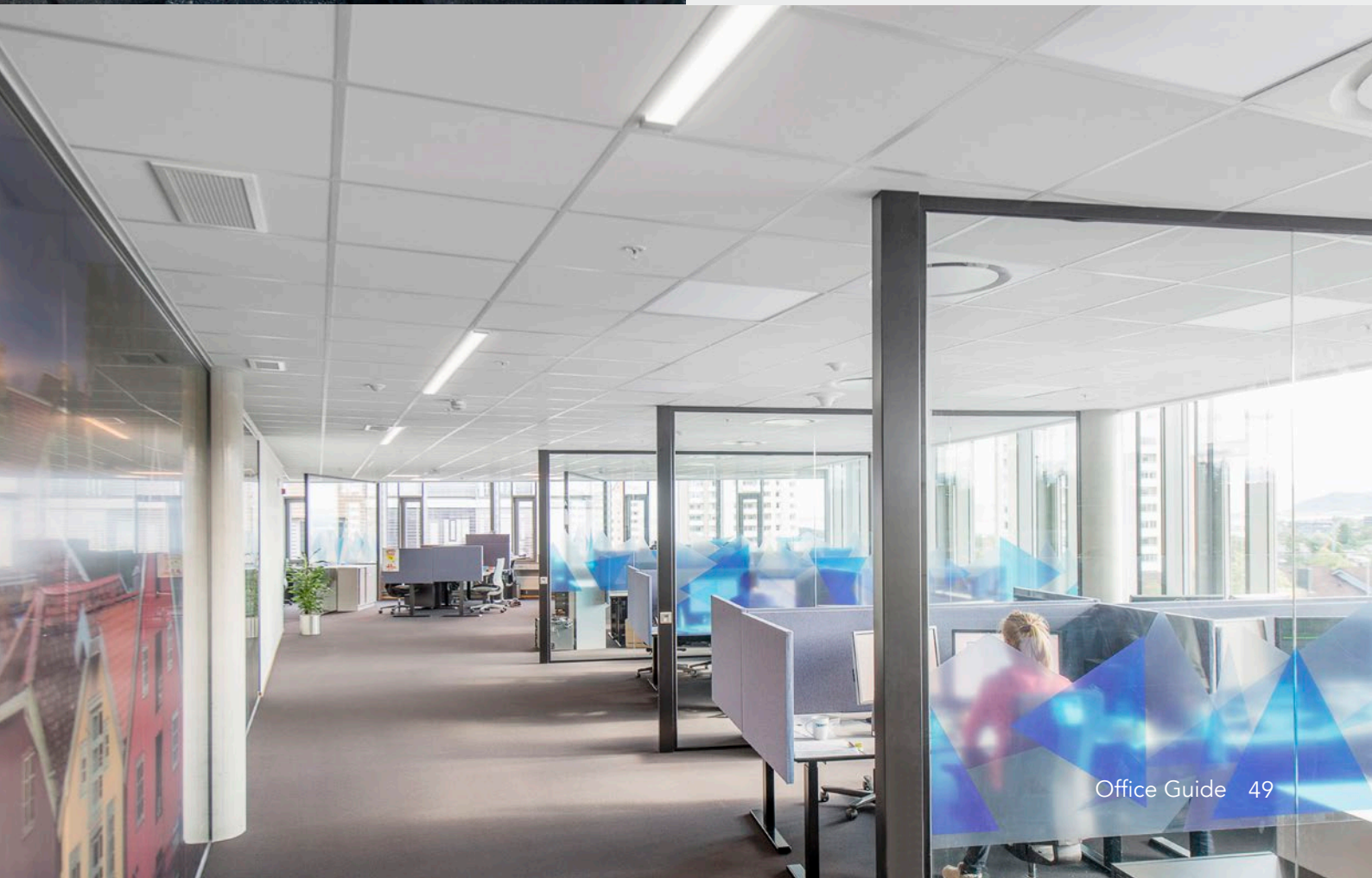
Challenge:

When this office building was built, sustainability and environmental impact were at the core of the project, which consisted of over 9500m².

Solutions and results:

When designing the building, there was an important focus on wellbeing, flexibility and privacy, which is why the architect opted to use the Rockfon dB range. The sustainable profile of Rockfon acoustic solutions enabled the building to be certified BREEAM Excellent, the first in Trondheim.

CASE STUDY ▼



Be part of making the world sound better to everyone

Get started today

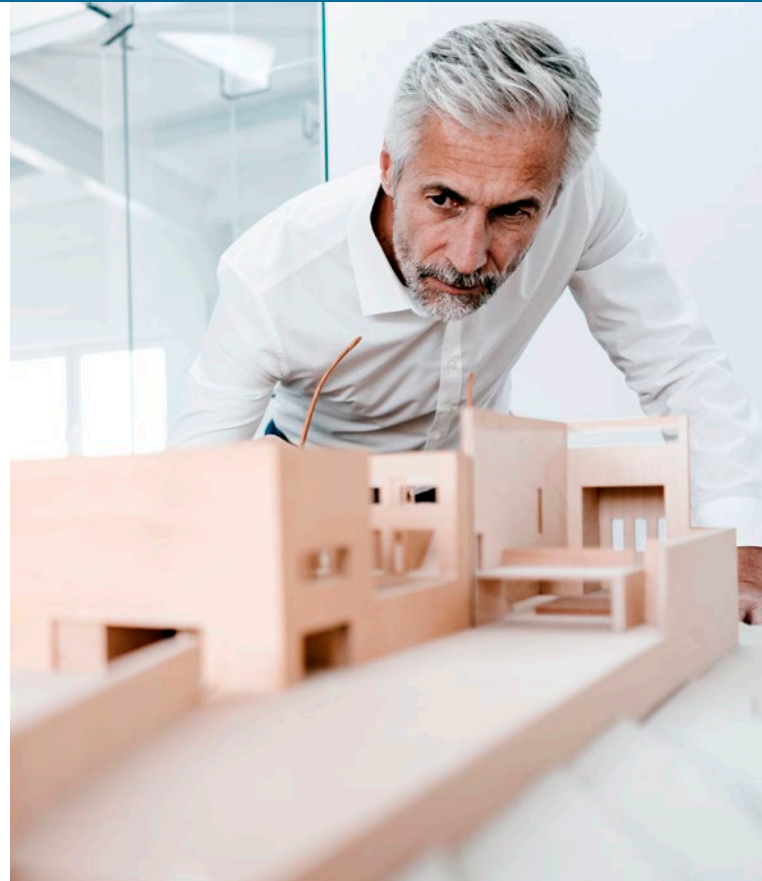
Rockfon is part of the ROCKWOOL Group and we are the world's leading acoustic company – and our mission is to keep things quiet.

We're the aha in creative workspaces

Every day we are inspired to innovate with sound solutions that help people think concentrate and enjoy life more. Our acoustic solutions do more than reduce noise, they support concentration and collaboration, improving productivity and wellbeing in the workspace.

We're here to help

We have 22 offices and 9 manufacturing facilities worldwide and we're on hand to help you find the right acoustic solutions for your next office project.



We are your sustainability partner

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 office 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 to use support on:

cee.rockfon.international



Let's connect

Give us a call whether you need advice on getting the right acoustic environment for your project, want to hear more about one of our products or just need technical support.

We're here to help.

**Tel. (+48) 22 372 01 50,
(+48) 22 372 01 60**

✓ Talk to an expert

✓ Order samples

✓ Mon-Fri 09.00-18.00

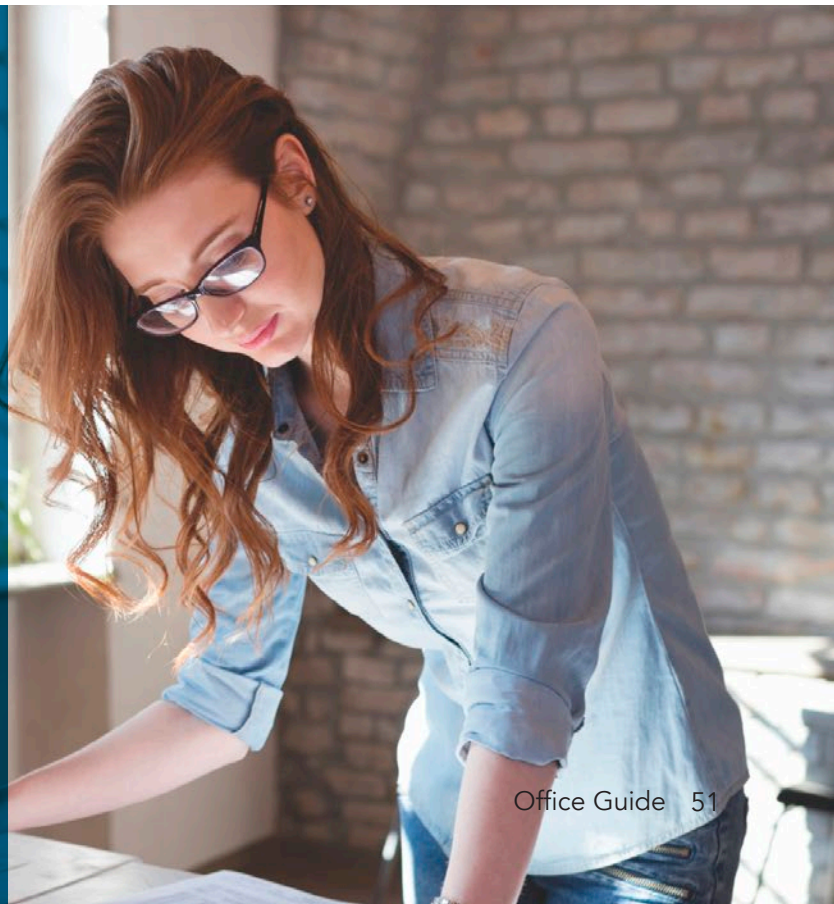
biuro@rockfon.com

cee.rockfon.international

//

Rockfon
proved to be
an invaluable
partner."

Stephen Holmes
Managing Director, Linear



Sounds Beautiful

