



We see
what you hear

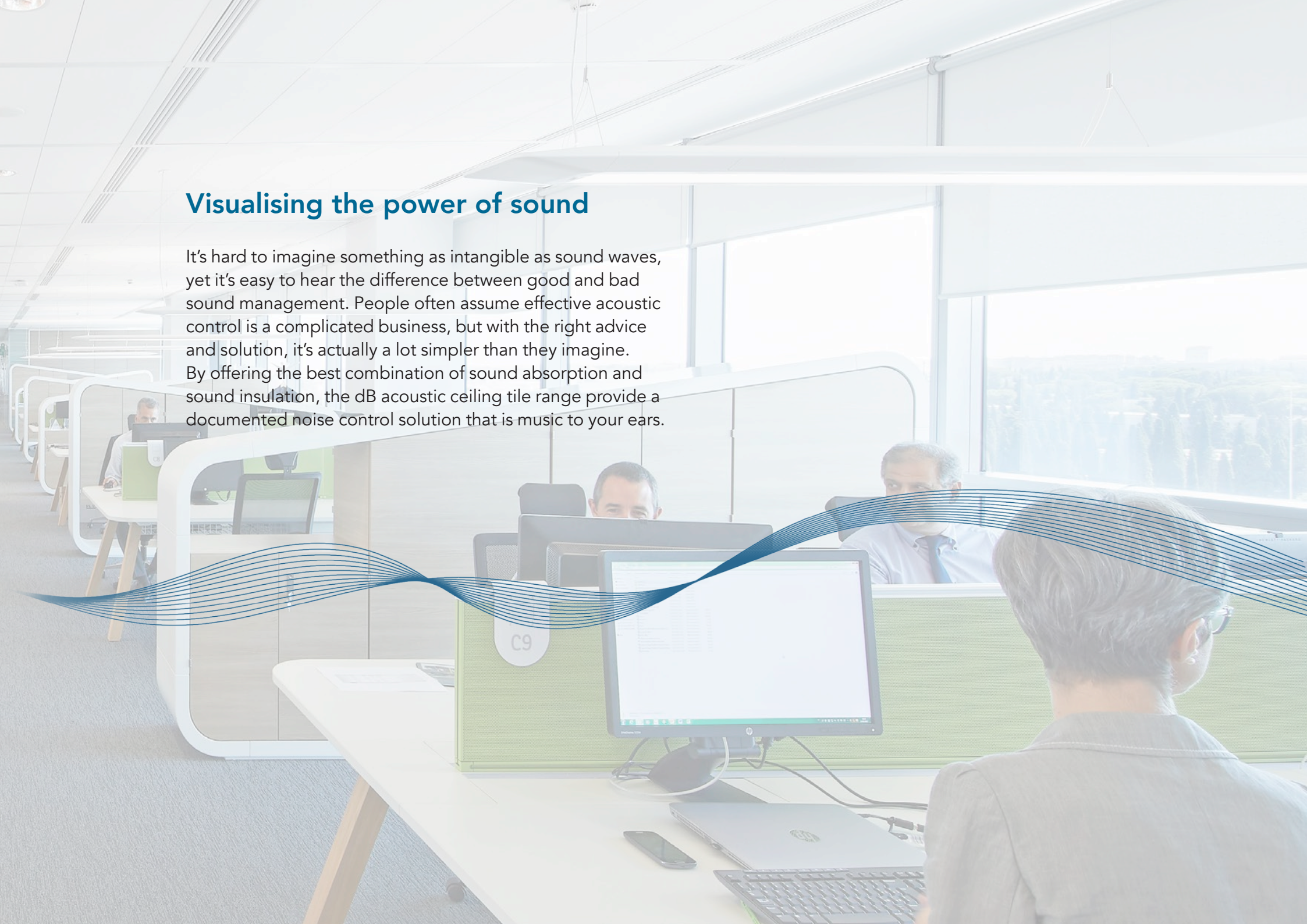
Optimise office acoustics with our dB tile range





Visualising the power of sound

It's hard to imagine something as intangible as sound waves, yet it's easy to hear the difference between good and bad sound management. People often assume effective acoustic control is a complicated business, but with the right advice and solution, it's actually a lot simpler than they imagine. By offering the best combination of sound absorption and sound insulation, the dB acoustic ceiling tile range provide a documented noise control solution that is music to your ears.



Creating the perfect office – why acoustics matter

Modern offices have to be flexible enough to accommodate an increasingly diverse range of activities, uses and employees, providing access to adequately soundproofed areas when extra concentration, creativity or privacy are required. It's hard to focus with other distractions in the room, and staff conversations, phone calls and machinery can seriously hinder productivity.

High noise levels = high stress levels

You often hear about poor acoustics reducing efficiency or lowering performance in the workplace, but what exactly does this mean? Can noise levels in an office really affect an employee's productivity or impact their well-being? Evidence seems to suggest this is the case. Studies show that loud environments have a negative effect on workers' concentration levels, work quality and ability to retain information. Healthwise, exposure to excessive noise can cause physical and physiological stress, resulting in poor job satisfaction and increasing the risk of absenteeism.

Prevention is better than cure

Acoustic management needs to be prioritised and integrated into past, present and future building and renovation projects in order to create and maintain a healthy and thriving office culture.

Futureproof your office space by choosing a versatile acoustic ceiling solution from the very beginning.

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

** Source: WGBC, *Building the Business Case: Health, Wellbeing and Productivity in Green Offices*, Oct 2016.

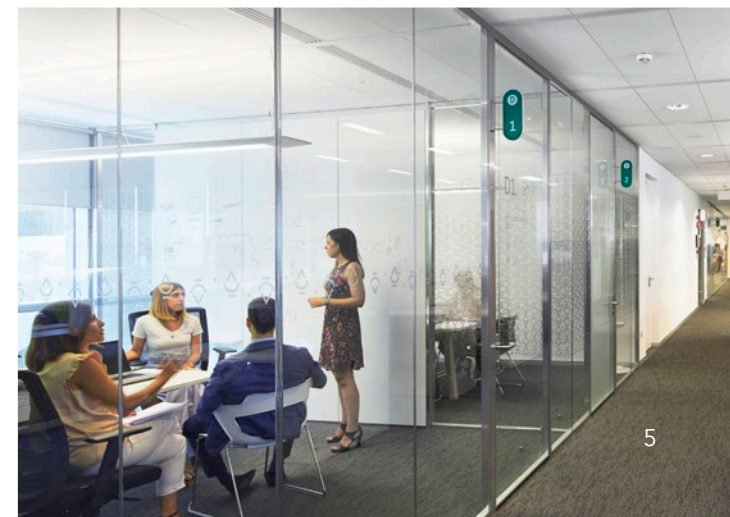
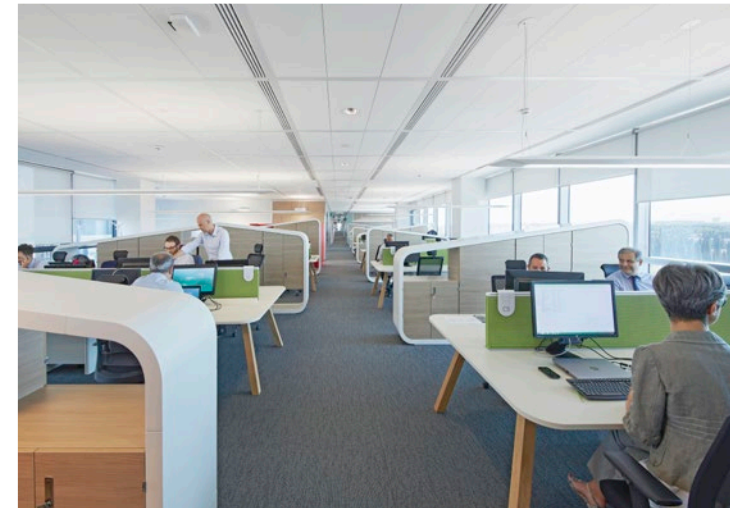
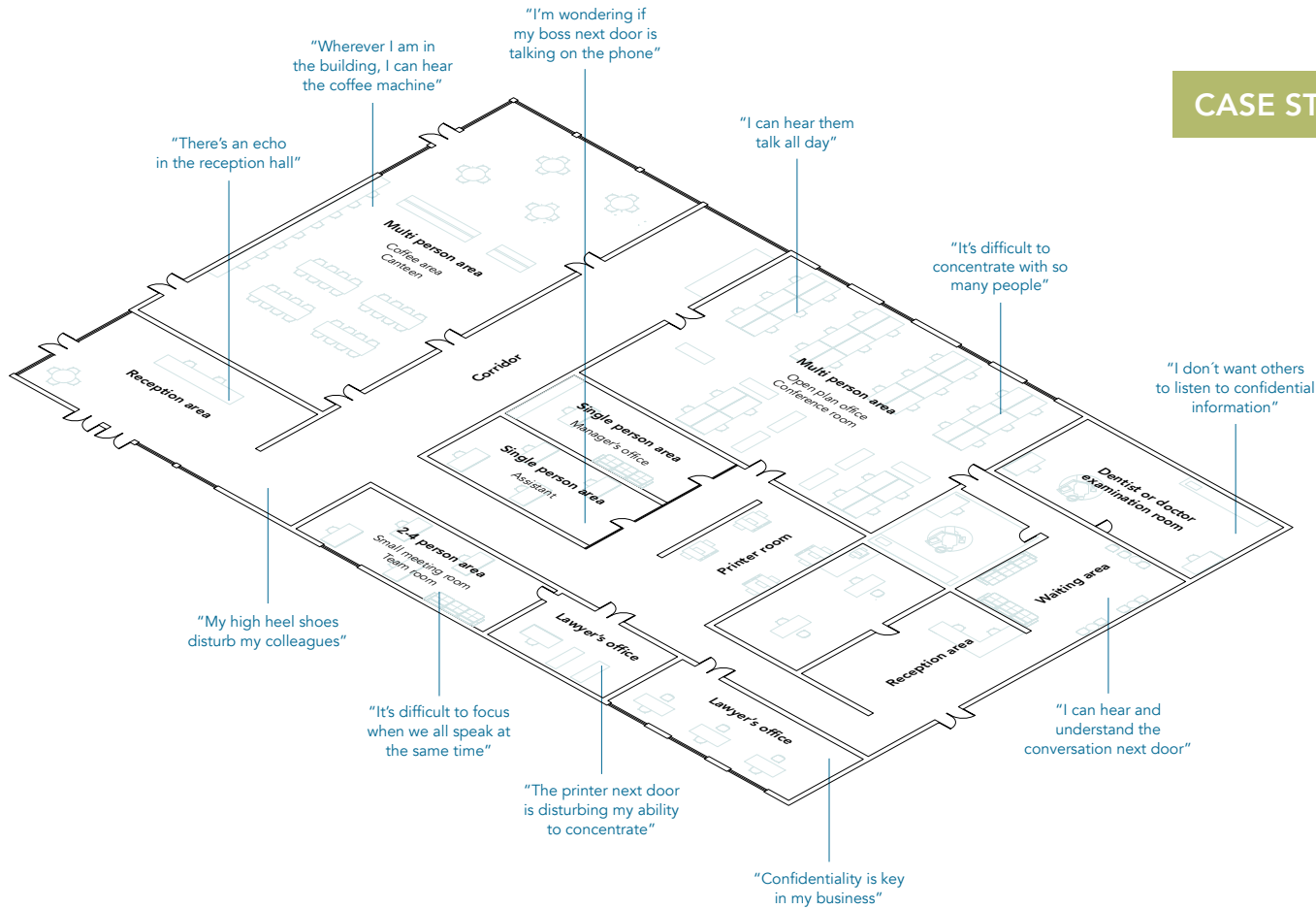


27% **66%**

Reduction in stress levels because of an improved acoustic environment in offices.*

Decrease in overall staff performance as a result of distracting noise.**

CASE STUDY



"We chose this range of products as it was crucial to ensure the ideal acoustic absorption and insulation in the shared working environments."

Paolo Mantero, Interior Designer, Studio Mantero

BNL-BNP Paribas, Rome, Italy

27,000 m² Rockfon® dB, D/AEX Edge Rockfon® System Bandrastrer™

The new Headquarter of BNL-BNP in Rome, Italy is a LEED Gold certified building. This meant that areas such as sustainability, lighting and acoustics were high on the agenda from the beginning of the design phase. The nature of the building and the many open workspaces combined with meeting rooms placed in busy areas made Rockfon's dB range a natural choice. Not only did Rockfon's acoustic tiles fulfill the sustainable criteria, they also offered the design flexibility needed to control the building's acoustic needs. The result retained the architects' desire for a bright and airy space, yet provided the functionality and noise management required for ultra-modern shared offices.

Rethinking the office space

As new buildings are constructed and old buildings are being renovated, their design has to cater for the shifts in working patterns. Flexibility is key, both in terms of design and materials.

Create the optimum acoustic work environment

What makes the office space an acoustical challenge is that it consists of multiple room types, from the open plan office, where absorbing sound and controlling the sound level is vital for a good indoor environment, to adjoining offices and meeting rooms, where privacy and confidentiality is key and where you wish to contain the sound.

Some building owners opt for sound insulation solutions that act as a barrier, preventing noise from entering or leaving a space, but this has no effect on absorbing or controlling the sound within the room. Others prefer to use sound absorption panels, which help increase speech intelligibility and reduce reverberation, but do not block sound from disturbing the people next door.

With the Rockfon dB range you do not need to compromise. The unique combination of both high sound insulation AND sound absorption lets you create the optimum acoustic work environment in any space.

ACOUSTIC WELL-BEING IS
PRIMARILY DETERMINED BY

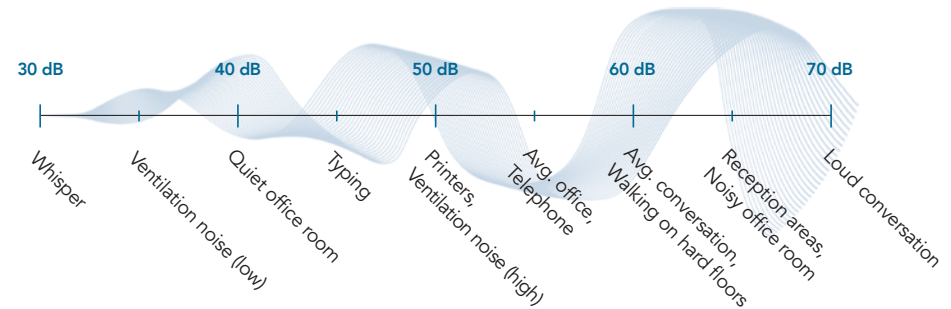
SOUND ABSORPTION (α_w)

Expresses how sound behaves in a room. It can reduce the disturbing echo and control the noise level ensuring good speech intelligibility.

SOUND INSULATION ($D_{n,f,w}$)

Expresses how much sound is reduced from one room to another. Sound insulation can prevent noise from travelling and increase room confidentiality and privacy.

NOISE THERMOMETER IN dB



Sound transmission between two offices

It isn't just the sound insulation capabilities of a product that affect the amount of noise being transferred from an adjacent room; the sound absorbing properties of the product will also have a positive influence. Something which is NOT reflected in the $D_{n,f,w}$ values.

As the illustrations indicate, ceilings with the same dB value, but different sound absorption levels, will result in different sound pressure levels.

When the sound source room has a ceiling with high sound absorption, it results in a lower sound pressure, meaning that less sound is transmitted to the adjoining room, as much of it has been partially absorbed by the ceiling.

When the receiving room also has a high absorbing ceiling, the sound pressure level will further decrease as the remaining sound entering the room is absorbed.

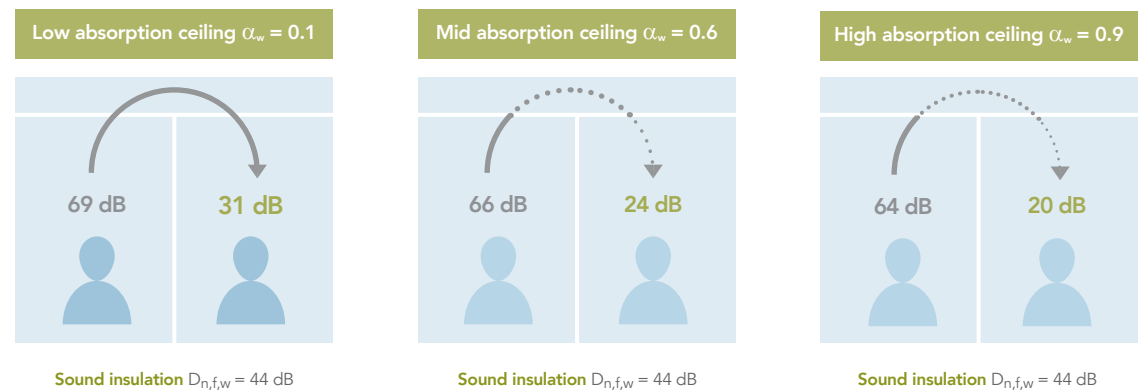
As opposed to a low absorption ceiling the sound is reduced both in the source room and again in the receiving room resulting in an overall lower sound pressure level.

With our unique dB range you get the best of both worlds ensuring your space achieves the most optimum acoustic environment.

A sound pressure level reduction of 3 dB equals a reduction to 1/2 the initial sound power.

A 6 dB reduction equals a reduction to 1/4 the initial sound power.

THREE CEILINGS WITH SAME SOUND INSULATION PERFORMANCE BUT DIFFERENT SOUND ABSORPTION PROPERTIES



Total sound pressure level in speech frequency range 500 - 4000 Hz



Listen with your eyes

For optimum sound management, it's essential to understand how sound behaves and travels within a certain space. Imagine the benefits of actually seeing what you are hearing, of being able to visualise hidden noise sources.

The most critical areas for sound transmission are often around light fittings or where the partition wall meets the ceiling. These "red" zones are where the majority of the distracting sound finds a path to enter the room. However, there is a solution that can turn these critical "red" zones into comfortable "blue" zones without compromising on the flexibility of the space.



Our dB range of acoustic tiles and accessories provide the most effective solution for your sound management issues. Depending on the level of confidentiality needed, you can control your noise levels accordingly, with either a basic dB tile for moderate sound blocking or combine it further with Rockfon's accessories for greater privacy.

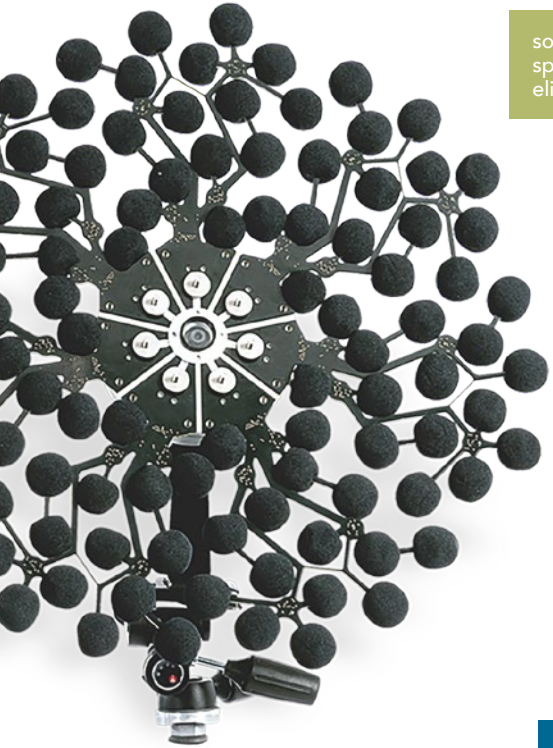
In combination with the right sound insulating properties of the partition walls, the ceilings are an important parameter to noise control. Choosing the right ceiling solution and making sure that the connections to the walls are handled accordingly can make all the difference between a good acoustic experience and a great one.



CASE STUDY

IT'S ESSENTIAL TO UNDERSTAND HOW

sound behaves within a certain space – we can help identify and eliminate your noise issues.



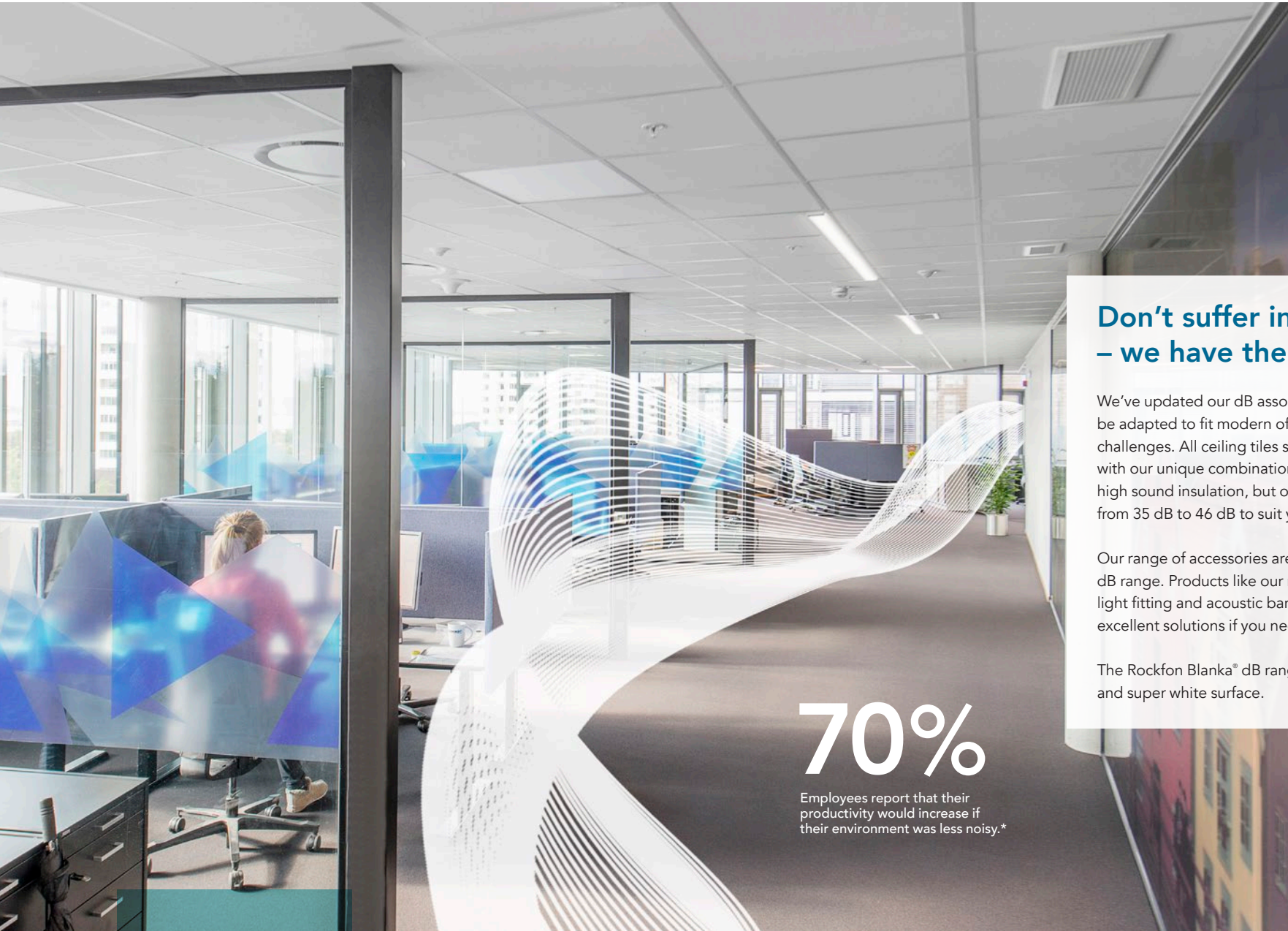
“In our previous office you had challenges of being able to hear what was being discussed in the adjoining meeting rooms but this significantly improved in the new offices.”

Øivind Hansen, Facility Manager, Skanska

Sundtkvartalet, Norway 31,000 m² Rockfon® dB, A edge

Sundtkvartalet is a large office building where, amongst others, Skanska is a main tenant. Skanska's needs and demands defined the project where effective, flexible and comfortable offices and workstations were given a high priority. As Skanska works with contracts that require a high degree of confidentiality Rockfon® dB is installed in most offices in Sundtkvartalet. It provides enhanced room-to-room sound insulation as well as a high level of sound absorption in areas where confidentiality is important.





Don't suffer in silence – we have the solution

We've updated our dB assortment with new options that can be adapted to fit modern office design needs and acoustic challenges. All ceiling tiles share the same Rockfon technology with our unique combination of high sound absorption and high sound insulation, but offer varying levels of sound control from 35 dB to 46 dB to suit your privacy requirements.

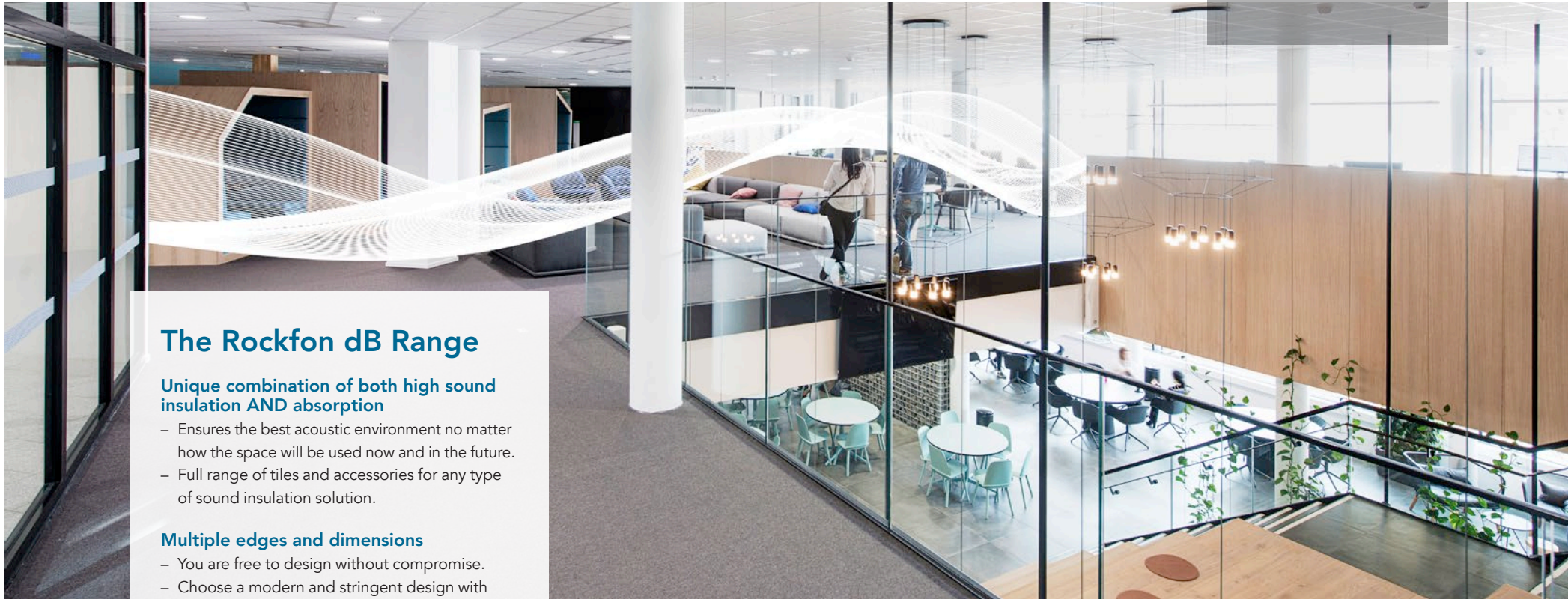
Our range of accessories are designed to complement the dB range. Products like our noise-blocking Rockfon® Rocklux® light fitting and acoustic barrier Rockfon® Soundstop™ are excellent solutions if you need to block sound totally.

The Rockfon Blanka® dB range features a smooth, deep matt and super white surface.

70%

Employees report that their productivity would increase if their environment was less noisy.*

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



The Rockfon dB Range

Unique combination of both high sound insulation AND absorption

- Ensures the best acoustic environment no matter how the space will be used now and in the future.
- Full range of tiles and accessories for any type of sound insulation solution.

Multiple edges and dimensions

- You are free to design without compromise.
- Choose a modern and stringent design with our Rockfon® System Ultraline™.
- Formats for all room types.

Elegant and versatile surfaces

- Easy to mix the dB products with our regular acoustic ceiling tiles ensuring the same look throughout the building.
- The super white surface of Rockfon Blanka draws in the natural light 11% further due to its unique L-value and light diffusion properties.

Low weight product

- Easy to handle and install.
- Quick to cut.

ROCKFON BLANKA dB

Rockfon Blanka's surface has been specially developed to create an unparalleled brightness and whiteness – a designer's dream, with functional benefits too.


With a light reflection index of 87%, Rockfon's dB tiles offer outstanding light reflection and light diffusion properties that maximise the uniform spread of natural light. 77% of building owners and architects identified improved indoor lighting conditions and daylight as the most important feature of healthier buildings.

The enhanced surface durability makes Rockfon Blanka more resistant to dirt and everyday wear and tear, extending the product lifetime.

Source: Dodge Data & Analytics, "Smart Market Report", 2016

Rockfon Blanka® dB 35

- Combines room to room sound insulation as well as good sound absorption for a flexible office layout where confidentiality is not an issue.

Edge detail	Module size (mm)	Weight (kg/m ²)	MS / MS easy access (mm)	Recommended installation System
 A24	600 x 600 x 25	3.4	50 / 100	Rockfon® System dB™
	1200 x 600 x 25	3.4	50 / 100	Rockfon® System dB™
 E15	600 x 600 x 25	3.4	60 / 100	Rockfon® System dB™
	1200 x 600 x 25	3.4	60 / 100	Rockfon® System dB™
 E24	600 x 600 x 25	3.4	60 / 100	Rockfon® System dB™
	1200 x 600 x 25	3.4	60 / 100	Rockfon® System dB™

MS = Minimum Suspension

Selected performances

For complete datasheet information please visit our website.



Sound absorption

α_w : 0.80 (Class B)



Direct sound insulation

R_w = 19 dB



Room to room sound insulation

$D_{n,f,w}$ = 35 dB

$D_{n,f,w}$ with Rockfon Acoustimass = 47* dB

$D_{n,f,w}$ with Rockfon Soundstop 30 dB = 50* dB

The sound insulation properties (R_w , $D_{n,f,w}$) presented in the datasheet represent A-edge tiles.

*) Values obtained on the basis of theoretical analysis.



Light reflection and light diffusion

87% light reflection
>99% light diffusion



Surface durability

Enhanced durability and dirt resistance.

Wet-scrub resistance: Class 1

The wet-scrub resistance is tested in accordance with EN ISO 11998:2007, rated on a scale from 1 to 5, where 1 is best.



Reaction to fire

A2-s1,d0



Visual appearance

Super white surface
L value: 94.5

The whiteness (L value) of the product is tested in accordance with ISO 7724 and measured on a scale from 1 (black) to 100 (white).

Deep matt surface, perfect in critical side-light
Gloss: 0.8 gloss unit at 85° angle

The gloss of the product is tested in accordance with ISO 2813.



Indoor environment

A selection of Rockfon products have been awarded







Environment

Fully recyclable



Rockfon Blanka® dB 41

- Combines enhanced room to room sound insulation as well as a high level of sound absorption (Class A) for a flexible and quiet office layout.

Edge detail	Module size (mm)	Weight (kg/m ²)	MS / MS easy access (mm)	Recommended installation System
 A24	600 x 600 x 35	5.6	50 / 200	Rockfon® System dB™
	1200 x 600 x 35	5.6	50 / 200	Rockfon® System dB™
 D	600 x 600 x 35	5.6	112 / 112	Rockfon® System dB™
	1200 x 600 x 35	5.6	112 / 112	Rockfon® System dB™
 E15	600 x 600 x 35	5.6	60 / 200	Rockfon® System dB™
	1200 x 600 x 35	5.6	60 / 200	Rockfon® System dB™
 E24	600 x 600 x 35	5.6	60 / 200	Rockfon® System dB™
	1200 x 600 x 35	5.6	60 / 200	Rockfon® System dB™

MS = Minimum Suspension

Selected performances

For complete datasheet information please visit our website.



Sound absorption

α_w : 0.90 (Class A)



Direct sound insulation

R_w = 21 dB



Room to room sound insulation

$D_{n,f,w}$ = 41 dB
 $D_{n,f,w}$ with Rockfon Acoustimass = 53* dB
 $D_{n,f,w}$ with Rockfon Soundstop 30 dB = 55* dB

The sound insulation properties (R_w , $D_{n,f,w}$) presented in the datasheet represent A-edge tiles.

*) Values obtained on the basis of theoretical analysis.



Light reflection and light diffusion

87% light reflection
 >99% light diffusion



Surface durability

Enhanced durability and dirt resistance.

Wet-scrub resistance: Class 1

The wet-scrub resistance is tested in accordance with EN ISO 11998:2007, rated on a scale from 1 to 5, where 1 is best.



Thermal insulation

Thermal conductivity: λ_D = 40 mW/mK
 Thermal resistance: R = 0.85 m²K/W



Reaction to fire

A2-s1,d0



Visual appearance

Super white surface
 L value: 94.5

The whiteness (L value) of the product is tested in accordance with ISO 7724 and measured on a scale from 1 (black) to 100 (white).

Deep matt surface, perfect in critical side-light

Gloss: 0.8 gloss unit at 85° angle

The gloss of the product is tested in accordance with ISO 2813.



Indoor environment

A selection of Rockfon products have been awarded







Environment

Fully recyclable

Rockfon Blanka® dB 43

- Combines enhanced room to room sound insulation as well as a high level of sound absorption (Class A) for flexible office layouts where confidentiality is important


Edge detail	Module size (mm)	Weight (kg/m ²)	MS / MS easy access (mm)	Recommended installation System
 A24	600 x 600 x 40	7.0	50 / 200	Rockfon® System dB™
	1200 x 600 x 40	7.0	50 / 200	Rockfon® System dB™
 D	600 x 600 x 40	7.0	112 / 112	Rockfon® System dB™
 E15	600 x 600 x 40	7.0	60 / 200	Rockfon® System dB™
	1200 x 600 x 40	7.0	60 / 200	Rockfon® System dB™
 E24	600 x 600 x 40	7.0	60 / 200	Rockfon® System dB™
	1200 x 600 x 40	7.0	60 / 200	Rockfon® System dB™


MS = Minimum Suspension

Selected performances

For complete datasheet information please visit our website.



Sound absorption
 α_w : 0.90 (Class A)



Direct sound insulation
 $R_w = 22$ dB



Room to room sound insulation
 $D_{n,f,w} = 43$ dB
 $D_{n,f,w}$ with Rockfon Acoustimass = 55* dB
 $D_{n,f,w}$ with Rockfon Soundstop 30 dB = 56* dB


The sound insulation properties (R_w , $D_{n,f,w}$) presented in the datasheet represent A-edge tiles.


*) Values obtained on the basis of theoretical analysis.



Light reflection and light diffusion
 87% light reflection
 >99% light diffusion



Surface durability
 Enhanced durability and dirt resistance.
 Wet-scrub resistance: Class 1
The wet-scrub resistance is tested in accordance with EN ISO 11998:2007, rated on a scale from 1 to 5, where 1 is best.


Thermal insulation
 Thermal conductivity: $\lambda_D = 40$ mW/mK
 Thermal resistance: $R = 1.00$ m²K/W


Reaction to fire
 A2-s1,d0


Visual appearance
 Super white surface
 L value: 94.5
The whiteness (L value) of the product is tested in accordance with ISO 7724 and measured on a scale from 1 (black) to 100 (white).
 Deep matt surface, perfect in critical side-light
 Gloss: 0.8 gloss unit at 85° angle
The gloss of the product is tested in accordance with ISO 2813.






Indoor environment
 A selection of Rockfon products have been awarded


Environment
 Fully recyclable



Rockfon Blanka® dB 46

- Provides enhanced room to room sound insulation as well as a high level of sound absorption (Class A) in areas where privacy and acoustic comfort are important

Edge detail	Module size (mm)	Weight (kg/m ²)	MS / MS easy access (mm)	Recommended installation System
 A24	600 x 600 x 50	7.9	80 / 200	Rockfon® System dB™
	1200 x 600 x 50	7.9	80 / 200	Rockfon® System dB™
 D	600 x 600 x 50	7.9	112 / 112	Rockfon® System dB™
 E15	600 x 600 x 50	7.9	90 / 200	Rockfon® System dB™
	1200 x 600 x 50	7.9	90 / 200	Rockfon® System dB™
 E24	600 x 600 x 50	7.9	90 / 200	Rockfon® System dB™
	1200 x 600 x 50	7.9	90 / 200	Rockfon® System dB™

MS = Minimum Suspension

Selected performances

For complete datasheet information please visit our website.



Sound absorption

α_w : 0.95 (Class A)



Direct sound insulation

R_w = 25 dB



Room to room sound insulation

$D_{n,f,w}$ = 46 dB
 $D_{n,f,w}$ with Rockfon Acoustimass = 56* dB
 $D_{n,f,w}$ with Rockfon Soundstop 30 dB = 58* dB

The sound insulation properties (R_w , $D_{n,f,w}$) presented in the datasheet represent A-edge tiles.

*) Values obtained on the basis of theoretical analysis.



Light reflection and light diffusion

87% light reflection
 >99% light diffusion



Surface durability

Enhanced durability and dirt resistance.

Wet-scrub resistance: Class 1

The wet-scrub resistance is tested in accordance with EN ISO 11998:2007, rated on a scale from 1 to 5, where 1 is best.



Thermal insulation

Thermal conductivity: λ_D = 40 mW/mK
 Thermal resistance: R = 1.25 m²K/W



Reaction to fire

A2-s1,d0



Visual appearance

Super-white surface
 L value: 94.5

The whiteness (L value) of the product is tested in accordance with ISO 7724 and measured on a scale from 1 (black) to 100 (white).

Deep matt surface, perfect in critical side-light
 Gloss: 0.8 gloss unit at 85° angle

The gloss of the product is tested in accordance with ISO 2813.



Indoor environment

A selection of Rockfon products have been awarded



Environment

The stone wool core is recyclable

Rockfon® Rocklux®

- Sound insulating cap limiting sound transmission through technical installations.

Module size (mm)	Weight (kg/unit)	Recommended installation System
1105 x 1105 x 30 *	4.2	Rockfon® System dB™
1780 x 745 x 30 **	4.5	Rockfon® System dB™

Rockfon Rocklux is delivered flat and must be assembled. Its internal/external dimensions when assembled are:
 * 725x725x130 / 785x785x160 mm: suitable for technical installations in modular sizes: 600x600, 625x625, 675x675 mm
 ** 1400x365x130 / 1460x425x160 mm: suitable for technical installations in modular sizes: 1200x300, 1250x312.5, 1350x300 mm.
 Use 2 pieces Rockfon Rocklux 1105x1105x30 mm assembled with aluminium tape for technical installations in modular sizes: 1200x600, 1250x625, 1350x600 mm.
 Internal dimensions include min. 50mm oversize (total) for light fixing protrusions.



Performance



Humidity and sag resistance

Up to 100% RH



Hygiene

Stone wool provides no sustenance to microorganisms



Environment

The stone wool core is recyclable



Indoor environment

A selection of Rockfon products have been awarded



Rockfon® Soundstop™

- Acoustic barriers which reduce noise transfer in ceiling and floor plenums

Edge detail	Module size (mm)	Weight (kg/m ²)
Soundstop 30 dB	1200 x 600 x 60	6.9

Dimensions given correspond exactly to the size of the finished products.

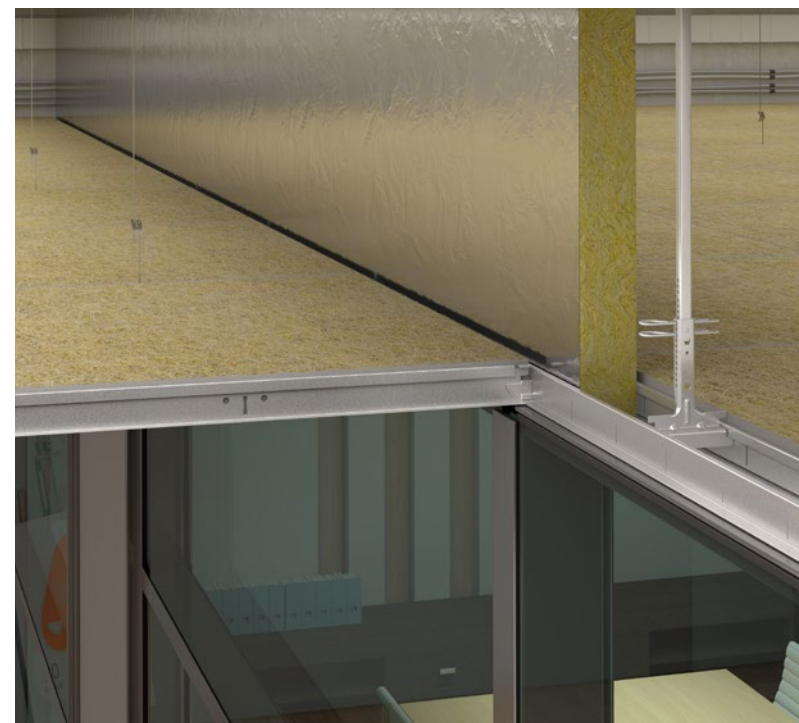
Performances



Direct sound insulation

$R_w = 30$ dB

Product	$D_{n,f,w}$	$D_{n,f,w}$ with Rockfon Acoustimass	$D_{n,f,w}$ with Rockfon Soundstop 30 dB
Rockfon Blanka (20 mm)	21'	37'	41'
Rockfon Blanka dB 35	35	47'	50'
Rockfon Blanka dB 41	41	53'	55'
Rockfon Blanka dB 43	43	55'	56'
Rockfon Blanka dB 46	46	56'	58'



Reaction to fire

A1



Humidity and sag resistance

Up to 100% RH.



Hygiene

Stone wool provides no sustenance to microorganisms



Indoor environment

A selection of Rockfon products have been awarded



Environment

The stone wool core is recyclable



Rockfon® Acoustimass™

- Acoustic barriers which reduce noise transfer in ceiling and floor plenums.

Module size (mm)	Weight (kg/m ²)	MS / MS easy access (mm)
1200 x 600 x 80	6.4	n/a
1200 x 1000 x 80	6.4	n/a

Dimensions given correspond exactly to the size of the finished products.

Performance



Direct sound insulation

$R_w = 19$ dB

Product	$D_{n,f,w}$	$D_{n,f,w}$ with Rockfon Acoustimass	$D_{n,f,w}$ with Rockfon Soundstop 30 dB
Rockfon Blanka (20 mm)	21'	37'	41'
Rockfon Blanka dB 35	35	47'	50'
Rockfon Blanka dB 41	41	53'	55'
Rockfon Blanka dB 43	43	55'	56'
Rockfon Blanka dB 46	46	56'	58'



Humidity and sag resistance

Up to 100% RH



Hygiene

Stone wool provides no sustenance to microorganisms



Environment

The stone wool core is recyclable



Indoor environment

A selection of Rockfon products have been awarded





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