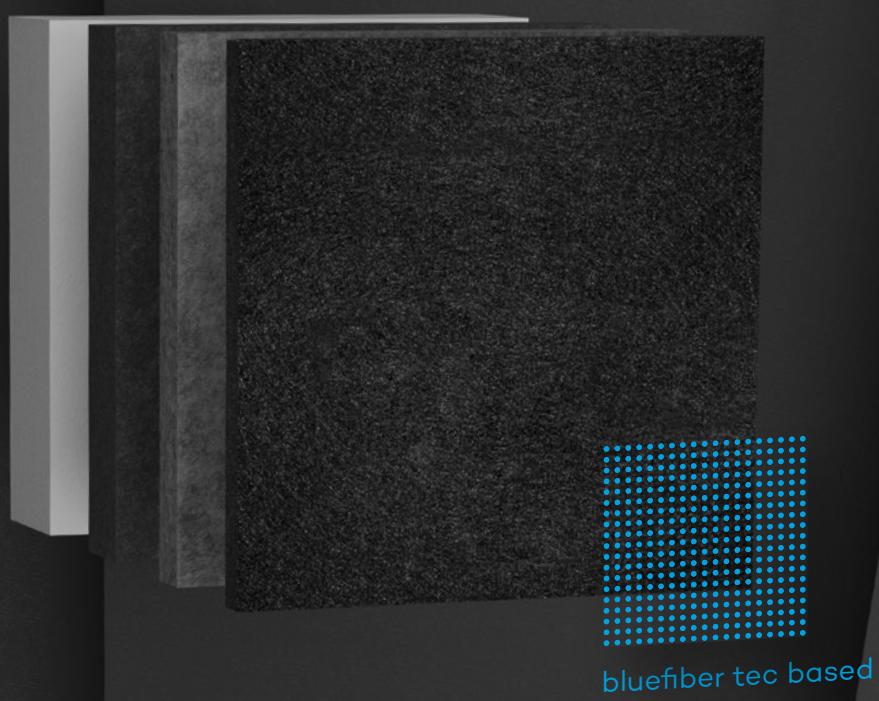
bluefiber

smart acoustic technology



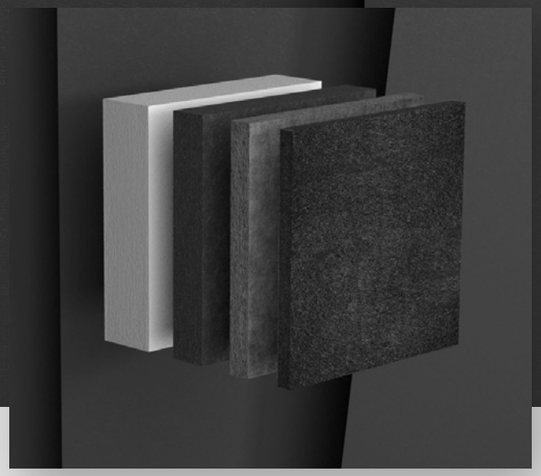
smart acoustic panels

Individual sound insulation with polyester-based high-tech in every fiber – for unlimited application opportunities.

bluefiber.sandler.de

a brand of sandler

The smart solution



smart acoustic panels
Ready to use and versatile for your ideas

bluefiber smart acoustic panels not only provide superb sound insulation, they are also ready for use to implement your ideas. The uniquely needle-punched bluefiber panels are available in a variety of versions.

Suitable for e.g.:

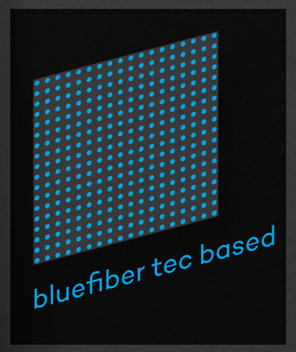
ceiling panel | wall absorber | office furniture (visual cover, partition wall) | ...

A solution for every application

Years of experience working with polyester go into the production of the different versions of our smart acoustic panels. No matter what project you have in mind: We have the solution. Optimize your rooms' acoustics the smart way.

bluefiber tec based
signifies quality – you have our word

bluefiber combines safety, quality and, above all, innovative technology. This smart acoustic technology is not only the basis for bluefiber products, it is also a seal of quality for acoustics solutions made from it. Choose quality you can build on.

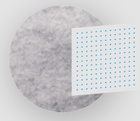
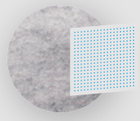
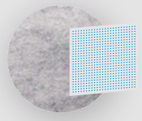


The kit for ideal acoustics

smart acoustic kit
For your perfect panel

Discover our smart acoustic panels in thicknesses of 12, 25, and 40 mm, each available in various densities. Depending on thickness and stability, the specific performances of the product vary. With our smart acoustic kit all options are open to you. Choose the performance type (I, II, III) best suited to your application.

Thickness	12 mm	25 mm	40 mm
12, 25, and 40 mm: Choose the right material thickness for your project.			

Performance type	I	II	III
Which degree of stability do you require?			
Mechanical stability	◉ ○ ○	◉ ◉ ○	◉ ◉ ◉

smart acoustic kit	12 mm	25 mm	40 mm
bluefiber panel I	✓	✓	✓
bluefiber panel II	✓	✓	✓
bluefiber panel III		✓	
Format	2,07 × 3,07 m	2,07 × 3,07 m	2,07 × 3,07 m

Color versions

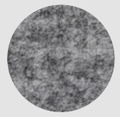
dessert taupe

stone beige

cotton beige

warm white

light grey


silver grey

anthracite grey

pure black

Always the right choice

smart acoustic features

Properties that will win you over

You are looking for an acoustic solution that visually appeals to your customer ? You want a product that ideally combines sound absorption and mechanical stability?
In addition to optimizing acoustics, flame-resistance is important in your application? bluefiber panels provide all functionalities you need.

Sound absorption

bluefiber panels meet the highest requirements with regard to sound absorption. The smart acoustic kit provides the right material for all applications and any fitting situation.

Visible applications

In visible applications, bluefiber panels can be installed in a visually appealing way without surface treatment, impressing with its abrasion-resistant surface. The user can also customize the look.

Mechanical stability

Depending on where the panels are to be used, you can choose which material properties meet your requirements. Find the right performance type for your use case.

Flame-resistance

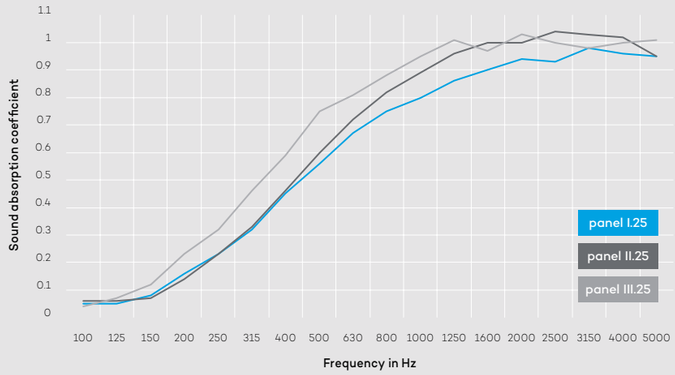
Having been tested in accordance with the EN 13501 standard, bluefiber panels are classified as flame-resistant.

Only the best properties combined

sound-absorbing | flame-resistant | single-polymer | mechanically stable | abrasion-resistant | thermoformable

Acoustically highly efficient

Different performance types



panel I.25
α_w-value: 0.55 (MH), standard absorbent, class D (19.5 kPa s/m²)

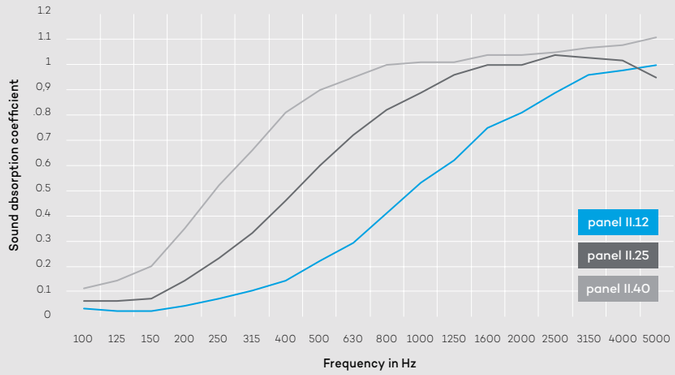
panel II.25
α_w-value: 0.55 (MH), standard absorbent, class D (43.0 kPa s/m²)

panel III.25
α_w-value: 0.65 (MH), highly absorbent, class C (76.4 kPa s/m²)

Structure:
25 mm panel, no distance to the testing room floor, sides closed, overall structure: 25 mm

> Apart from increased mechanical stability, the use of different performance types at constant material thickness can increase absorption across the entire frequency range.

Different thicknesses



panel II.12
α_w-value: 0.25 (MH), low absorbent, class E (71.1 kPa s/m²)

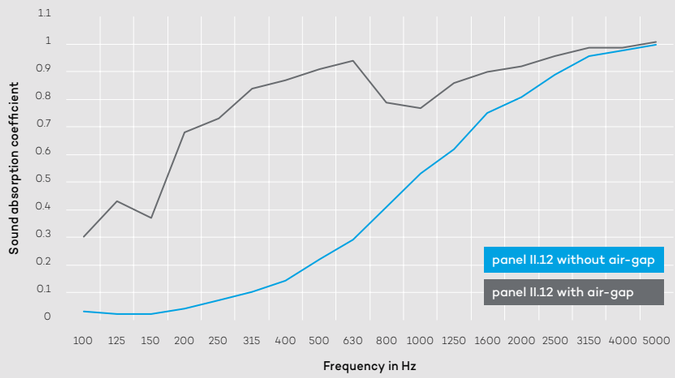
panel II.25
α_w-value: 0.55 (MH), standard absorbent, class D (43 kPa s/m²)

panel II.40
α_w-value: 0.80 (H), maximum absorbent, class B (33.3 kPa s/m²)

Structure:
12 – 25 – 40 mm panel, no distance to the testing room floor, sides closed, overall structure: 12 – 25 – 40 mm

> At constant mechanical stability, different material thicknesses can generate different degrees of acoustic efficiency within a performance type. Increasing product thickness markedly enhances sound absorption efficiency, particularly in medium and low frequencies.

With and without air-gap



panel II.12
without air-gap α_w-value: 0.25 (MH), low absorbent, class E (71.1 kPa s/m²)

panel II.12
200 mm air-gap α_w-value: 0.90, maximum absorbent, class A (71.1 kPa s/m²)

Structure:
12 mm panel, blue curve: no distance to the testing room floor, sides closed, overall structure: 12 mm

12 mm panel, grey curve: 200 mm distance to the testing room floor, sides closed, overall structure: 212 mm

> Owing to the assembly situation and the air-gap to the sound-reflecting background, absorption efficiency in different frequency ranges can be greatly optimized.
> A targeted modification is possible.

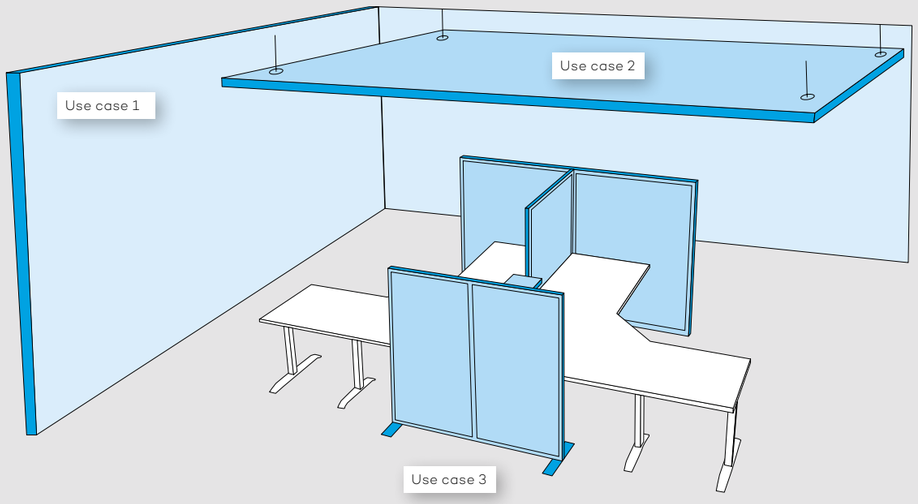
* sound absorption coefficient in the reverberation room acc. to DIN EN ISO 354 – 2003 / weighted sound absorption coefficient acc. to DIN EN ISO 11654 and verbal assessment acc. to VDI 3755 / length-related flow resistance acc. to DIN EN ISO 9053 – 1

Just right for your application

smart acoustic examples

Different versions for every application

Our performance types commend themselves to different applications. The following use cases illustrate examples of how you can apply our products. It goes without saying that bluefiber smart acoustic panels are available in many more versions and suitable for countless applications owing to their easy processability. Do not hesitate to contact us for more information!



» A room's acoustic quality is also influenced by its geometry, the selection and distribution of sound-absorbing and sound-reflecting surfaces, as well as by reverberation time and noise. «

(excerpt DIN 18041 standard – audibility in rooms –)

We have everything you need!

You are looking for a panel with different performance characteristics? No problem. We will be happy to advise you individually and find the right smart acoustic product for implementing your idea.

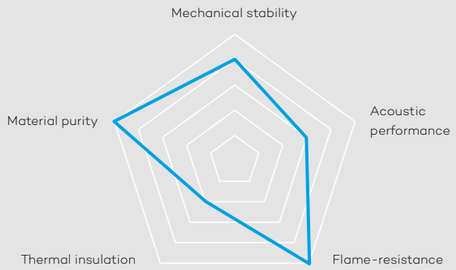
Use case 1

bluefiber panel II.12 / construction

Planking of a drywall structure / acoustically efficient wall covering, α_w-value 0.25 (MH),

(measured without air-gap to the reverberation room floor)

Using the slim, mechanically stable panel II.12 as sound-absorbing wall covering, acoustically hard rooms constructed in the classic drywall style can be noticeably optimized. Even with only a small amount of material, significant changes and a reduction of reverberation are achievable. Acoustic efficiency can be further optimized by using a substructure with wall spacing.



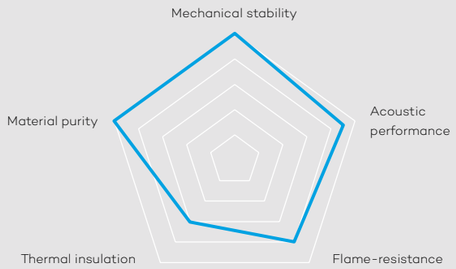
Use case 2

bluefiber panel III.25 / interior acoustics

Ceiling panel, α_w-value 0.85,

(measured with 200 mm air-gap to the reverberation room floor)

Our smart acoustic panels are ideally suited for interior acoustics. The efficient, self-supporting products are applicable without a frame and with little fastening effort for example as a ceiling panel. This performance type is acoustically highly efficient and visually apealing owing to its slim design.



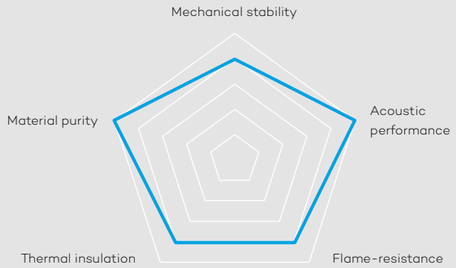
Use case 3

bluefiber panel II.40 / construction of a partition wall

Partition wall; α_w-value 1,

(measured with 200 mm air-gap to the reverberation room floor)

Free-standing or transportable acoustic partitions are suitable for optimal sound insulation. Our smart acoustic panel II.40 provides the ideal absorber thickness for best sound absorption and stable, rigid single-layer partition wall structures. The high-quality and abrasion-resistant surface ensures a long service life.



Performance figures

The key facts

P-Type \ Thickness	12 mm		25 mm		40 mm	
I	0,3 (H) **0,8** 0,37	D **B** 21,3	0,55 (MH) **0,95** 0,76	D **A** 19,5	0,75 (H) **1** 1,22	C **A** 18,0
II	0,25 (MH) **0,9** 0,35	E **A** 71,1	0,55 (MH) **0,95** 0,75	D **A** 43,0	0,8 (H) **1** 1,2	B **A** 33,3
III	0,35 (MH) **0,8** 0,31	D **B** 174,4	0,65 (MH) **0,95** 0,73	C **A** 76,4		

Caption

Sound absorption value acc. to DIN EN ISO 11654 (α_w-value)

Weighted sound absorption coefficient acc. to DIN EN ISO 11654

0,55 (MH) **0,95** 0,75	D **A** 43,0

without air-gap to reverberation room floor

200 mm air-gap to reverberation room floor

Thermal resistance (R) (10° C) in sqm K/W acc. to DIN EN 12667

Length-related flow resistance in kPa s/sqm acc. to DIN EN ISO 9053-1

Your smart acoustic solution

Ready for action with every fiber

smart acoustic applications

Strong in application & ready to use

Looking to implement your idea for an acoustics project? bluefiber products are perfectly well thought out – whether you plan to use them for interior acoustics, the construction industry or in technical insulations. Utilizing smart acoustic technology, bluefiber panels are suited for a variety of applications.

Shhh! Time for some quiet!

Wherever you apply bluefiber products: The smart acoustic panels are safe, high-quality and immediately ready for use – this we guarantee through our unique technology, our certifications and decades of experience.

Optimized acoustics with material purity

With bluefiber you are choosing high-performance acoustic products made from polyester with a high degree of material purity. Our textile fiber panels are Cradle to Cradle Certified® and designed to support technical material cycles. In manufacturing our products, we use both virgin raw materials and recycled polyester fibers, including recycled PET materials.

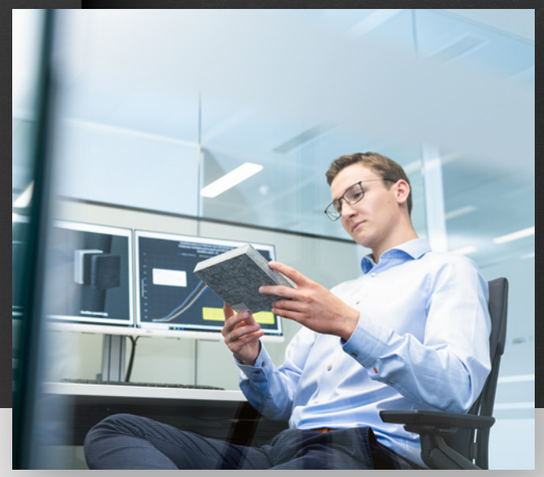
The material purity supports material recycling at the end of the product's useful life. bluefiber materials are free from added binders and produced without chemical bonding. This way, robust acoustic solutions are created for a wide range of applications in architecture and interior design.

EPD®
THE INTERNATIONAL EPD® SYSTEM

CERTIFIED
cradle to cradle
PRODUCTS PROGRAM

Ready for smart products?

Whether as a sound-absorbing addition in drywall construction, for noise reduction for industry and technology, or as a semi-finished product in acoustic elements such as wall absorbers, partitions and ceiling panels: The smart acoustic panel is suitable for various applications. You would also like to benefit from the advantages of bluefiber in your acoustics products? Put true smart acoustic technology into your solutions and benefit from the „bluefiber tec based" seal of quality.



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