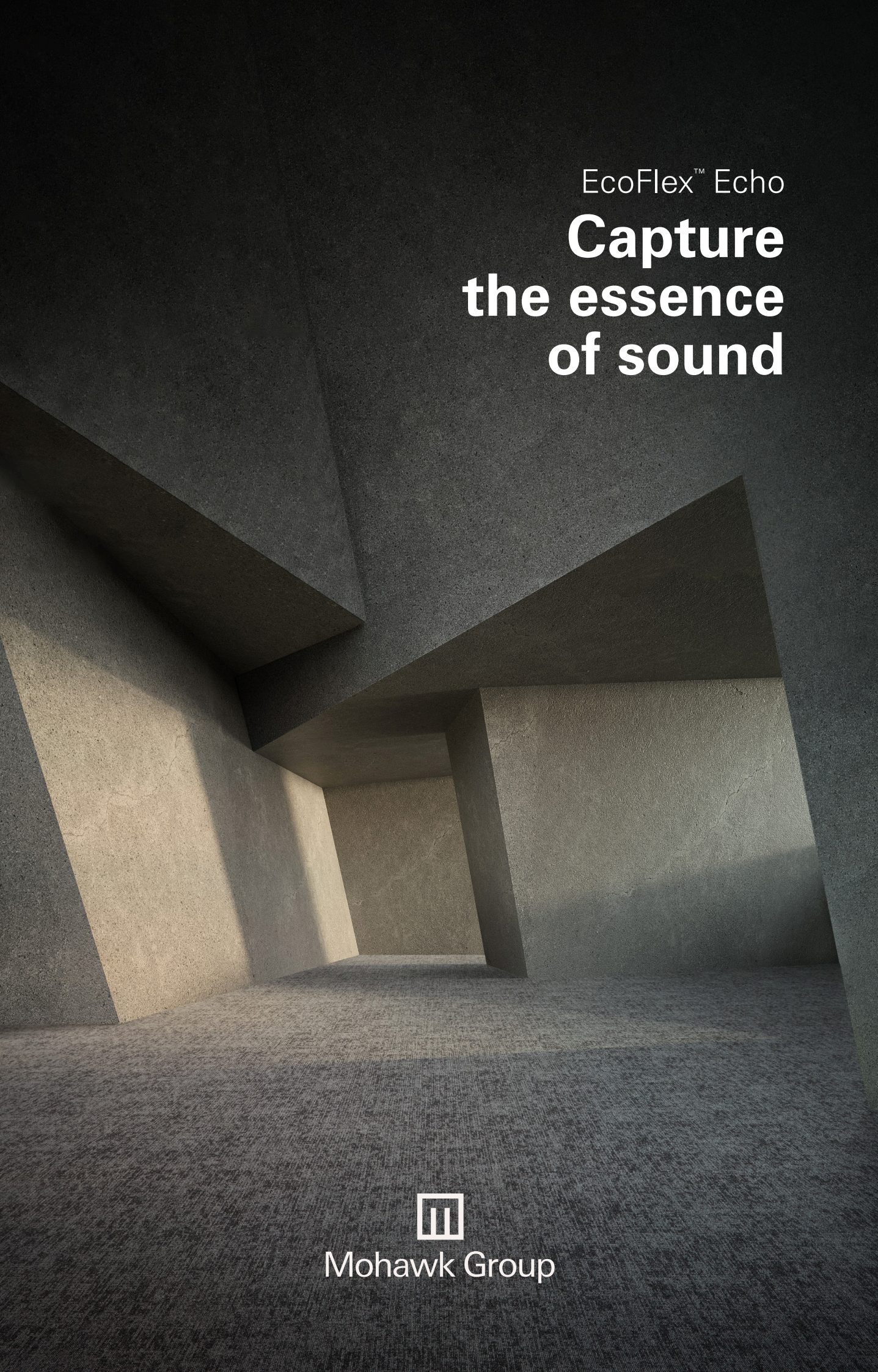
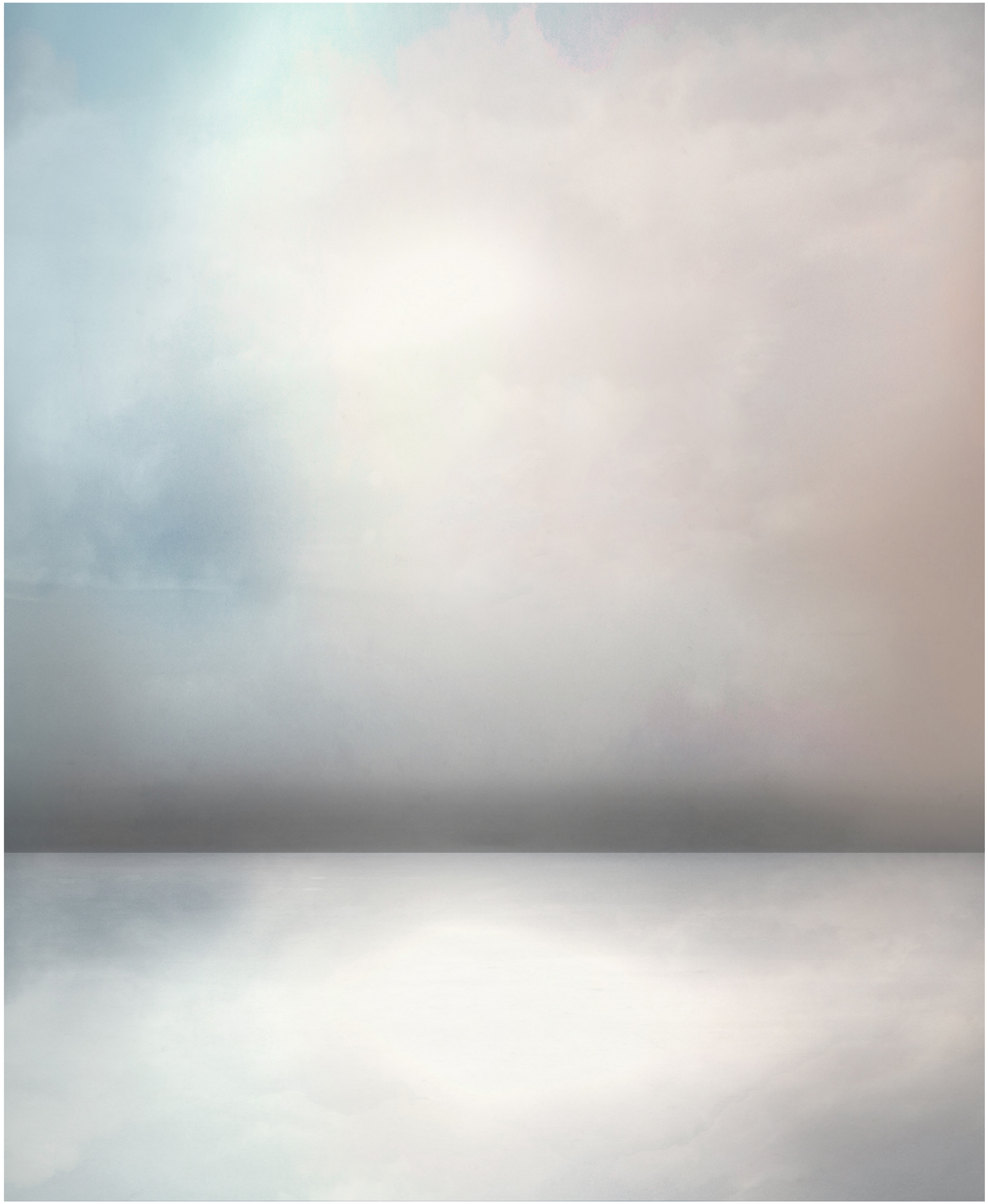

EcoFlex™ Echo
Capture the essence of sound
Mohawk Group



EcoFlex™ Echo

Good sound conditions stimulate our health and wellbeing.

Designer for today's needs, Mohawk Group presents a new acoustic carpet tile backing. Alongside our trusted EcoFlex™ Statera backing solution, **EcoFlex™ Echo completes the range with enhanced acoustics and an increased level of underfoot comfort.**

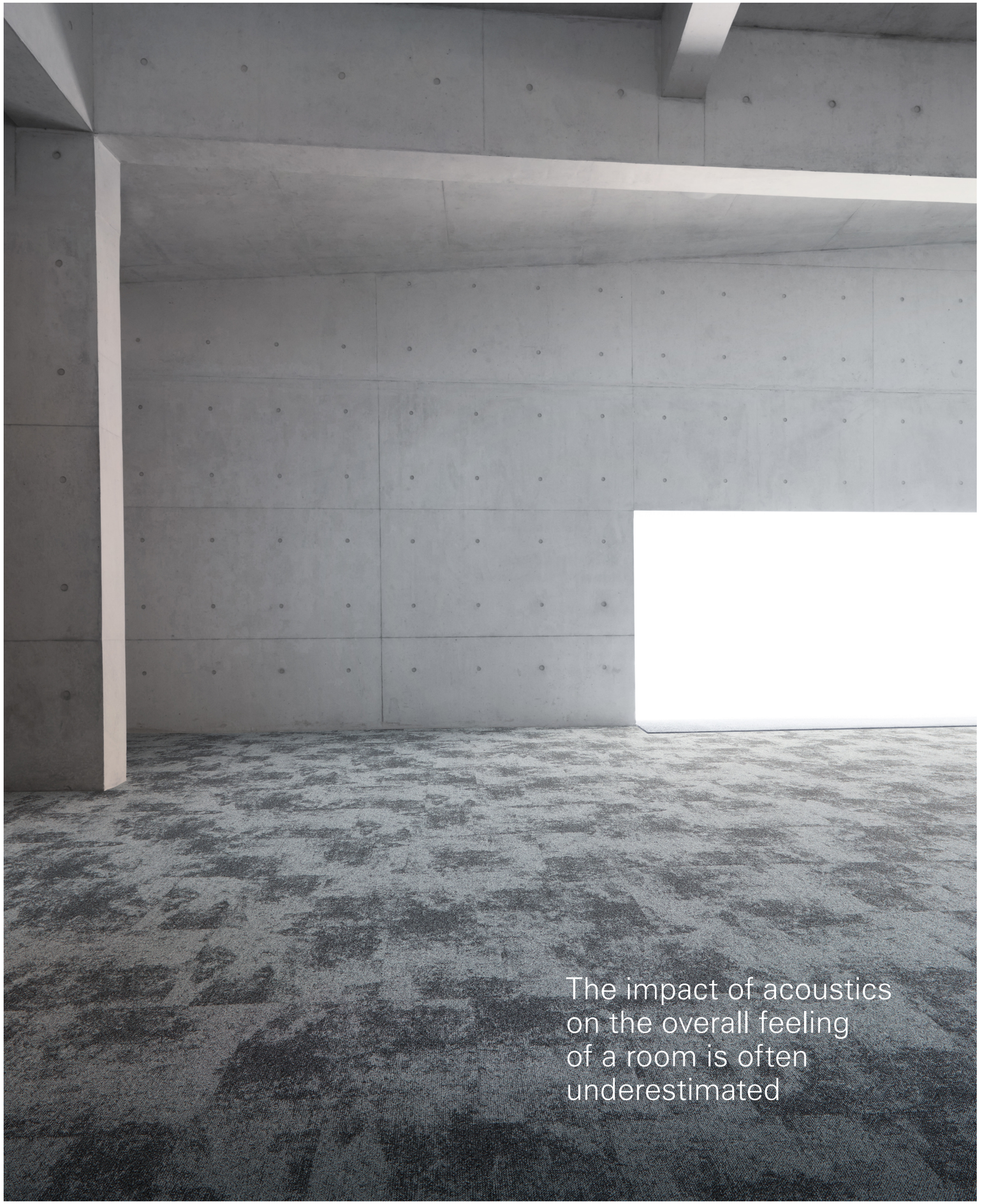
This backing is available on all our carpet tile collections for orders of 200 m^2 or more.

Acknowledging the power of acoustics

When designing **a well-balanced space**, a series of elements needs to be taken into consideration. Whether it's a choice of colours, decoration items, lighting or use of materials; each will contribute to the overall feeling of a room.
In this, the aspect of acoustics is often underestimated, despite **optimal sound insulation and absorption being essential** to create a healthy and productive working environment.
That's why **soundproofing through flooring** has become a necessary part of interior design in modern construction and renovation projects.

Rising to today's challenges

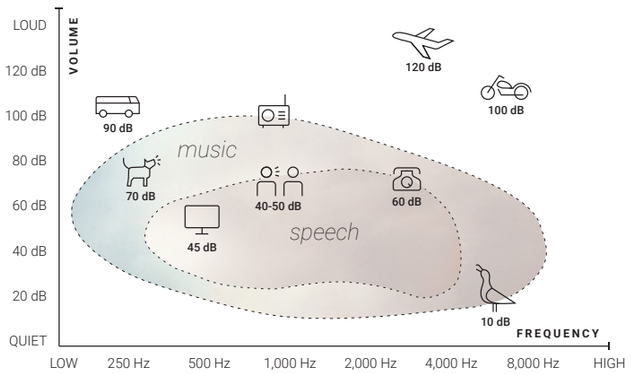
Hard materials, commonly used in **contemporary architecture** for their durability and sleek finish, evidently don't provide the ideal conditions for good sound reduction. And in **older buildings**, where noise reducing materials aren't structurally integrated, **an acoustic floor can make all the difference**. EcoFlex™ Echo carpet tiles are equipped with an acoustic backing, reducing noise levels and **providing improved comfort**.



Considering sound in all its forms

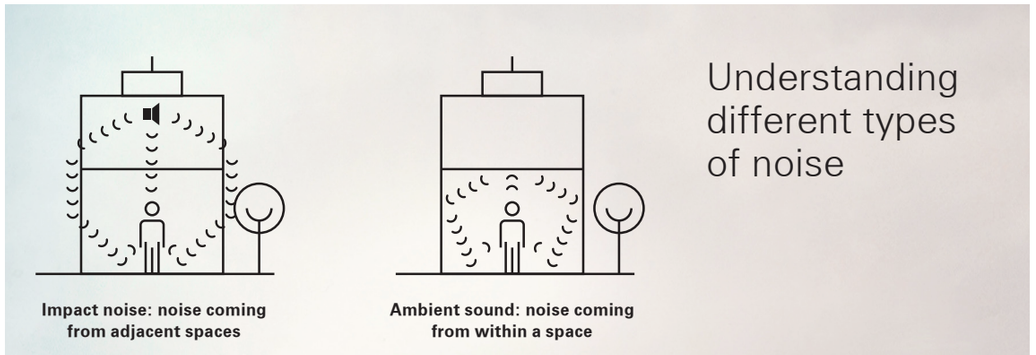
Sound is a free spirit. It can originate at any place and at any time. While searching for the right flooring materials, it helps to **understand the way sound travels** and how we make sense of it.

The range of human hearing depends on the power level (dB) and the frequency (Hz) of the sound. For our ears **0 dB is the so-called hearing threshold**, while 140 dB is the absolute limit for hearing comfortably. Likewise when it comes to pitch, **we start hearing at 20 Hz** while frequencies surpassing 20,000 Hz are beyond our hearing range.



What happens when sound meets surface?

The sound is reflected | **The sound is absorbed** | **The sound passes through**



Optimal impact sound reduction

Carefully selected **backing materials** improve the carpet's ability to **reduce impact noise**. Impact noise is a structural vibration that occurs when one object collides with another, such as footsteps on a floor. It typically arises in **adjacent spaces** most notably between spaces above and beneath. Sound insulation is expressed as a **weighted reduction** in impact noise, known as ΔL_w. In other words, this value tells you how much sound transferred to adjacent spaces can be reduced by use of acoustic materials.

Ability to absorb

Flooring helps to **absorb ambient sounds from speech** or other sources **within a room**. When it comes to sound absorption, **soft surface flooring** will always deliver better results than hard flooring. But by selecting the appropriate carpet backing, **absorption values** can be further improved.

A material's sound-absorbing properties are **measured over 18 frequencies** between 100 Hz and 5,000 Hz, leading to 18 different αs values. These are averaged into a single value: the α_w or **weighted sound absorption** coefficient. Where an α_w value of 0 indicates no sound absorption, an α_w value of 1 means all sound has been absorbed.


Embrace softness
in sound...
... and beneath
your feet

Backing every flooring project

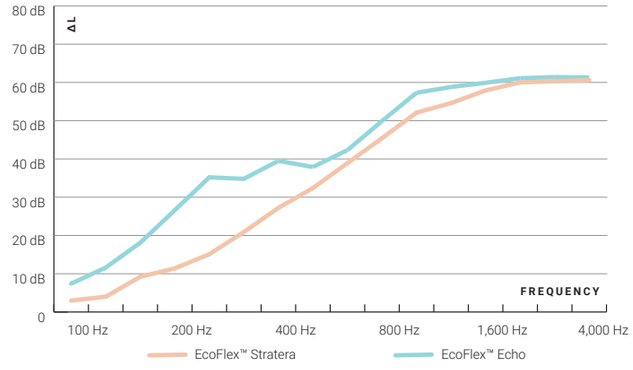
At Mohawk Group we believe everyone is entitled to better acoustics and ergonomic comfort. That's why we've developed a superior backing that considers acoustic insulation, sound absorption and underfoot comfort.

So, when there's need for specific technical requirements regarding the acoustics of a space, **EcoFlex™ Echo** provides the answer.

Offering improved levels of **impact sound reduction and sound absorption**, EcoFlex™ Echo carpet tiles are built to last. Tested in accordance with the EN1307 standard, EcoFlex™ Echo delivers **high quality in all aspects**, from dimensional stability and burning behaviour to a perfect seam finish.

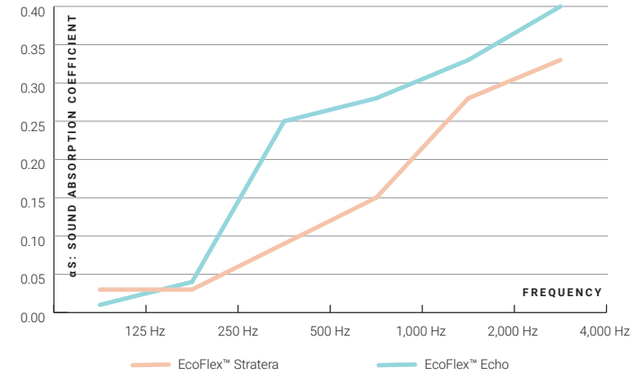
Standard Mohawk Group Carpet Tiles with the **EcoFlex™ Statera** backing system are also developed with attention to acoustic properties. They offer a qualitative solution for projects where **no specific values** are required.

Impact Sound Insulation Shared Path (ΔL)



EcoFlex™ Echo reduces impact noise by up to 25% compared to a standard backing.

Sound Absorption Shared Path (α_s)



EcoFlex™ Echo improves sound absorption values by up to 100% compared to standard backing.

Going beyond acoustics

Composed for improved comfort

Dedicated to the future of flooring and the lasting comfort of our customers, we are continuously committed to ensuring the **long-term quality** of our products.

This smart choice of material also ensures a **higher level of underfoot comfort** and prevents muscle fatigue.

Eco-friendly flooring

Making products more sustainable is an integral part of our innovation and design process.

EcoFlex™ Echo's improved acoustic performance is obtained through an **additional layer of 94% recycled polyester felt**.

Improved performance and underfoot comfort is obtained through a 94% recycled polyester felt layer

EcoFlex™ Echo

Acoustics tailored to different applications

The extent of required sound insulation and absorption is inextricably linked to the purpose of a space.

In offices, especially **open-space concepts**, reducing noise is crucial for **concentration and productivity**. By minimising excessive sound employees find it easier to concentrate, perform and come up with creative ideas.

Education environments must balance the need to absorb background noise with the ability for teachers and pupils to be heard clearly.

The **hospitality industry** is increasingly confronted with acoustic demands. Particularly in hotels and gastronomic restaurants, where calmness is synonymous with luxury, powerful acoustic flooring like EcoFlex™ Echo is invaluable.

In other areas, such as **healthcare**, peace and quiet are the absolute norm. Clinical populations are generally **more sensitive** to unwanted sounds.

EcoFlex™ Statera versus EcoFlex™ Echo:

Comparison of αw and dB values

	ECOFLEX™ STATERA	ECOFLEX™ ECHO
ART INTERVENTION		
Creative Spark	0,15 αw	**0,30 αw**
Expansion Point	0,15 αw	**0,25 αw**
RUDIMENTS		
Basalt	0,15 αw	**0,25 αw**
Jute	0,15 αw	**0,25 αw**
Teak	0,15 αw	**0,25 αw**
Clay	0,15 αw	**0,25 αw**
Clay Create	0,15 αw	**0,25 αw**
CONTOUR		
View	0,15 αw	**0,25 αw**
Perspective	0,15 αw	**0,25 αw**
BALANCED HUES		
Balanced Hues	0,20 αw	**0,25 αw**
IMPERFECTION		
Grit	N/A	**0,25 αw**
Bruut	N/A	**0,30 αw**
Rupture	N/A	**0,30 αw**

	ECOFLEX™ STATERA	ECOFLEX™ ECHO
ART INTERVENTION		
Creative Spark	32 dB	**35 dB**
Expansion Point	27 dB	**33 dB**
RUDIMENTS		
Basalt	28dB	**32dB**
Jute	28dB	**32dB**
Teak	28dB	**32dB**
Clay	28dB	**31dB**
Clay Create	28dB	**31dB**
CONTOUR		
View	25dB	**28 dB**
Perspective	25dB	**28 dB**
BALANCED HUES		
Balanced Hues	28dB	**33 dB**
IMPERFECTION		
Grit	N/A	**29 dB**
Bruut	N/A	**31 dB**
Rupture	N/A	**30 dB**

The complete technical data sheets are available on **ivc-commercial.com**: just scan the QR code

Ecoflex™ Echo - 09/2022

Mohawk Group

www.mohawkgroup.eu