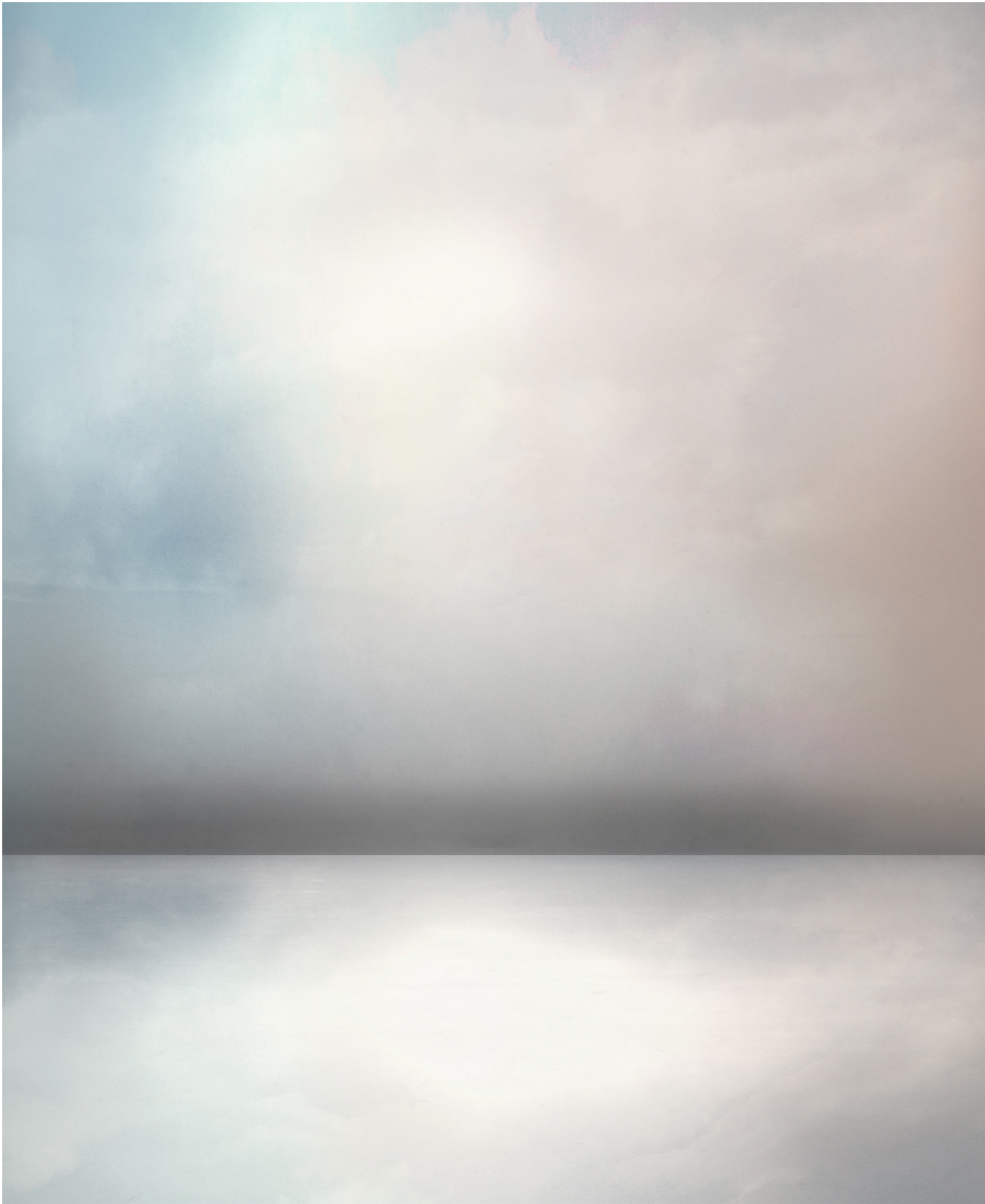


EcoFlex™ Echo

**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<sup>2</sup> 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**.

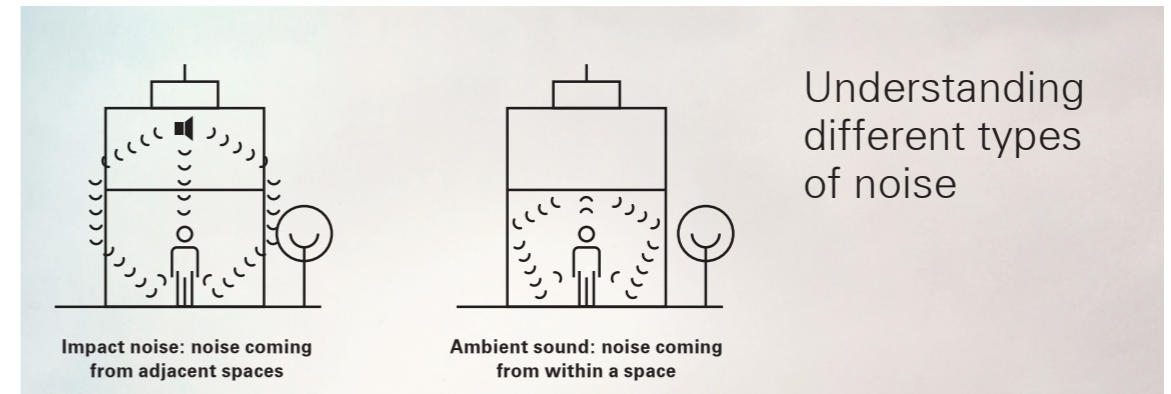
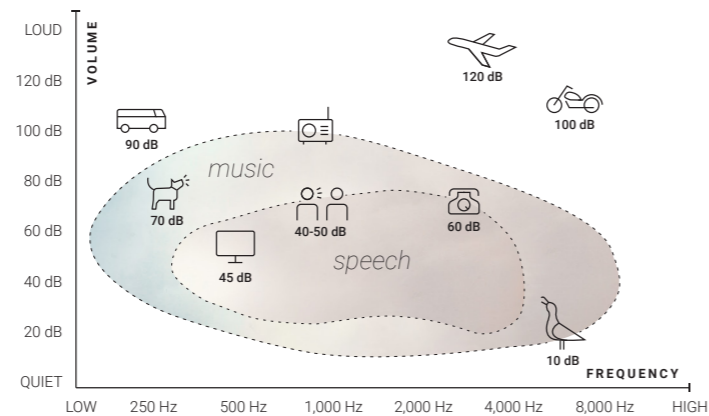


The impact of acoustics  
on the overall feeling  
of a room is often  
underestimated

# 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.



Understanding different types of noise

## 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  $\Delta L_w$ . 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

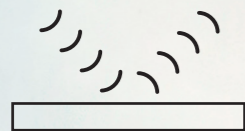


Flooring helps to **absorb ambient sounds from speech** or other sources

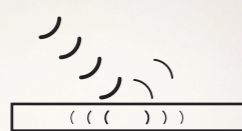
**within a room.** When it comes to sound absorption, **soft surface flooring** will always deliver better results than hard flooring. But by selecting the appropriate carpet backing, **absorption values** can be further improved.

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

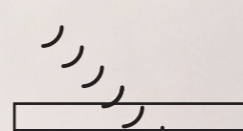
## What happens when sound meets surface?



The sound is reflected



The sound is absorbed



The sound passes through



Embrace softness  
in sound...

... and beneath  
your feet



# Backing every flooring project

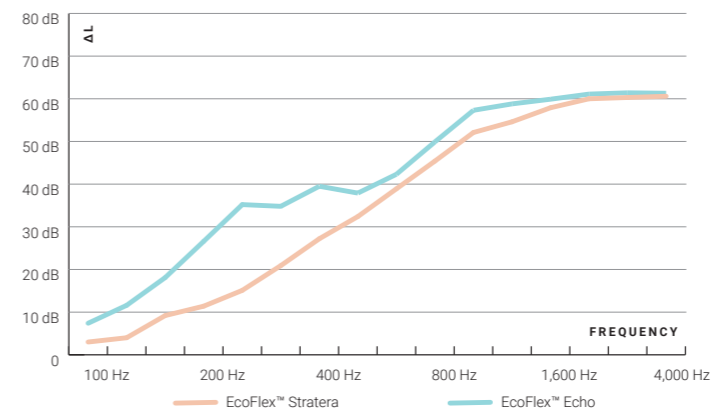
At Mohawk Group we believe everyone is entitled to better acoustics and ergonomic comfort. That's why we've developed a superior backing that considers acoustic insulation, sound absorption and underfoot comfort.

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.

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

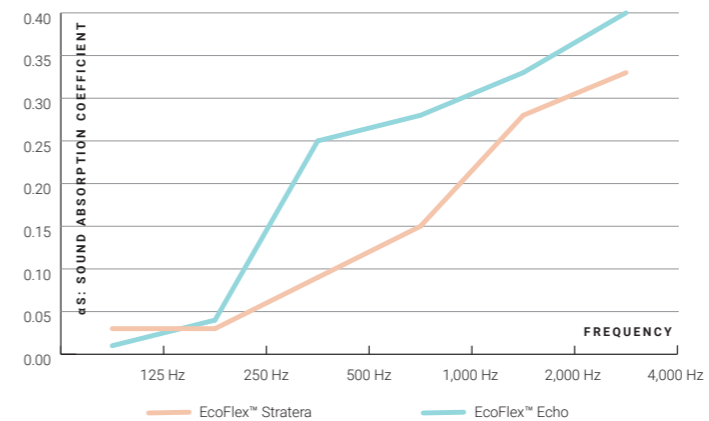
Offering improved levels of **impact sound reduction and sound absorption**, EcoFlex™ Echo carpet tiles are built to last. Tested in accordance with the EN1307 standard, EcoFlex™ Echo delivers **high quality in all aspects**, from dimensional stability and burning behaviour to a perfect seam finish.

### Impact Sound Insulation Shared Path ( $\Delta L$ )



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

### Sound Absorption Shared Path ( $\alpha_s$ )



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.

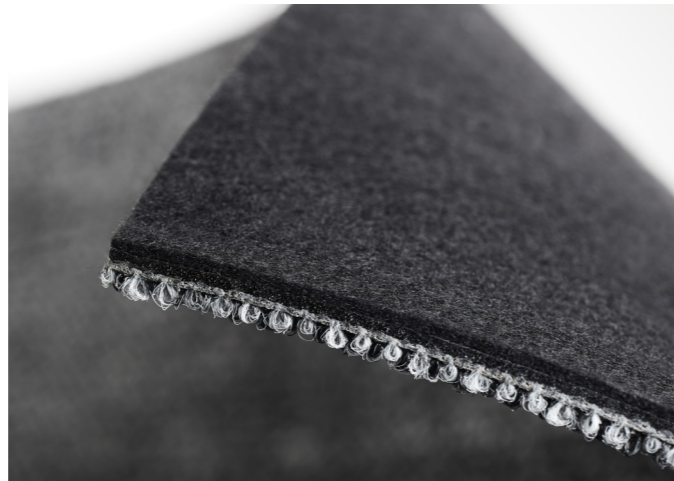
This smart choice of material also ensures a higher level of underfoot comfort and prevents muscle fatigue.

## 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



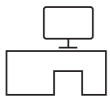
EcoFlex™ Echo





# 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.



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.



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



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



In offices, finding the balance between disruptive noise and unsettling silence is key



# EcoFlex™ Statera versus EcoFlex™ Echo:

Comparison of aw and dB values

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

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

The complete technical data sheets are available on [ivic-commercial.com](https://www.ivic-commercial.com): just scan the QR code



 Mohawk Group

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[www.mohawkgroup.eu](http://www.mohawkgroup.eu)

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