Fractal

SOLID WOOD SUSPENDED CEILING
WITH VERTICAL SLATS

LAUDESCHER

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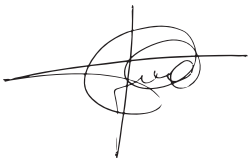
WITH VERTICAL SLATS

"To us, wood is more than just a material. For over 50 years, it has inspired us to create designs that enhance both architecture and quality of life. From traditional carpentry to technological innovation, Laudescher has developed a unique and renowned industrial base. Driven by a passion for wood and a humanistic vision of our craft, open to the world, we provide professionals with innovative, higher-value solutions. Working alongside these professionals, Laudescher tackles the technical, environmental and economic challenges of contemporary construction. For them, we select high-quality, sustainable resources, advance technologies, and imagine new designs for tomorrow's buildings."

Jean-Marc Laudescher
President



A committed and certified company for people and the environment

Laudescher's quality approach is certified annually by independent bodies.

Quality commitment: ISO **9001**

Sustainable forest management:
PEFC CERTIFICATION - PEFC NO./10-31-2391
FSC®CERTIFICATION - FSC® NO. C125874

CE marking

FSC www.fsc.org FSC® C125874
La marque de la gestion forestière responsable

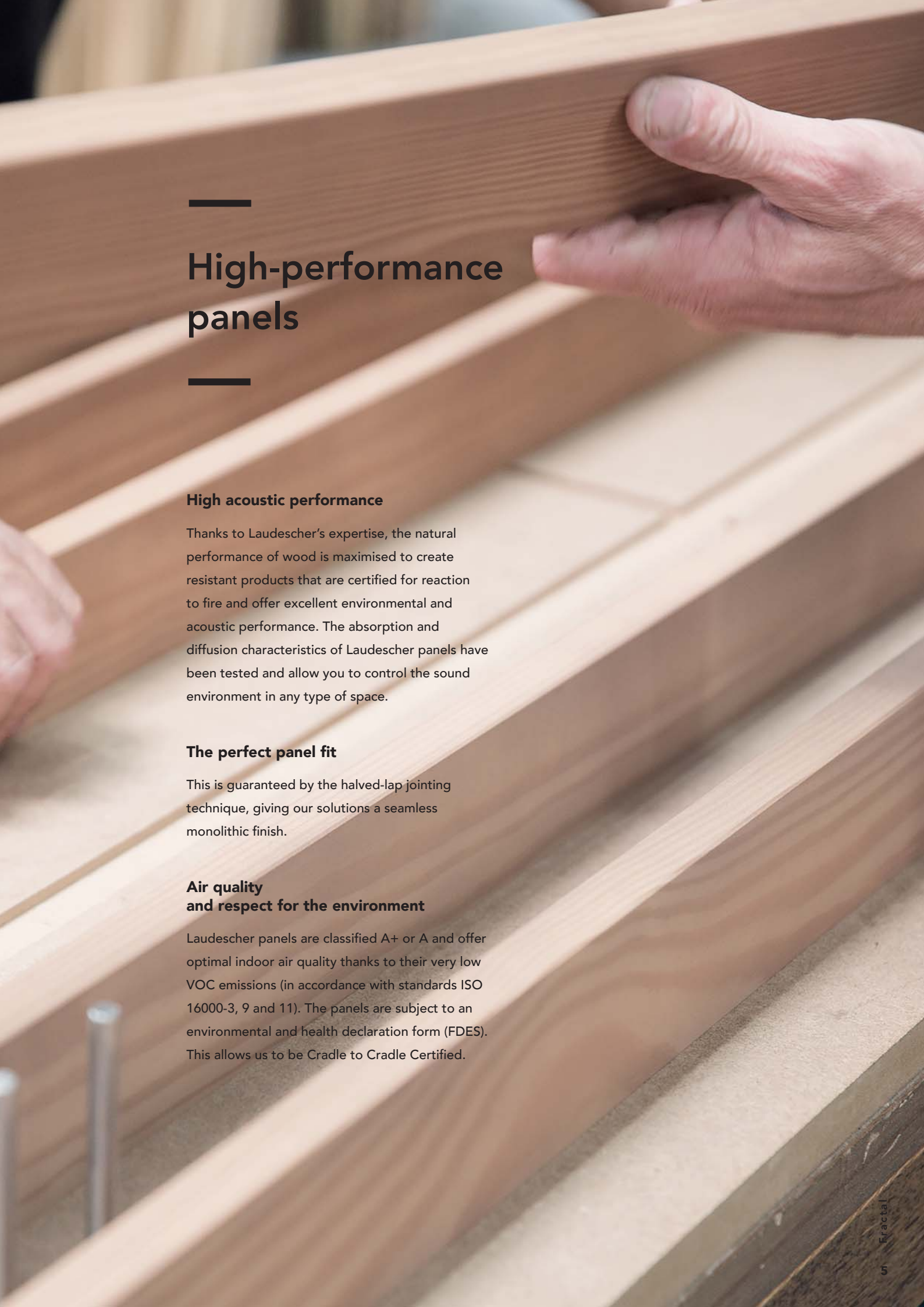
PEFC 10-31-2391 Promouvoir la gestion durable de la forêt www.pefc-france.org

CE

L'EXCELLENCE DES SAVOIR-FAIRE FRANÇAIS • ENTREPRISE DU PATRIMOINE VIVANT • EPV

full scope CERTIFIED cradle to cradle bronze version 3.1

Entreprise B Certifiée



High-performance panels

High acoustic performance

Thanks to Laudescher's expertise, the natural performance of wood is maximised to create resistant products that are certified for reaction to fire and offer excellent environmental and acoustic performance. The absorption and diffusion characteristics of Laudescher panels have been tested and allow you to control the sound environment in any type of space.

The perfect panel fit

This is guaranteed by the halved-lap jointing technique, giving our solutions a seamless monolithic finish.

Air quality and respect for the environment

Laudescher panels are classified A+ or A and offer optimal indoor air quality thanks to their very low VOC emissions (in accordance with standards ISO 16000-3, 9 and 11). The panels are subject to an environmental and health declaration form (FDES). This allows us to be Cradle to Cradle Certified.

Fractal: when architecture meets nature.

Fractal ceilings are a true architectural masterpiece. Its timber slats are more than just components; they subtly evoke the natural, organic patterns found in cave ceilings adorned with stalactites. The different modules can be assembled to create visually stunning ceilings, giving the space a unique visual dimension.

Optimised acoustic performance

Fractal ceilings are an excellent acoustic management solution for interior environments. Its structure is specifically designed to absorb and diffuse sound, significantly improving acoustic comfort. This feature makes it a popular choice for demanding locations where sound clarity is essential.

Subtle lighting integration

The spacing between the timber slats provides a unique opportunity to integrate discreet or sophisticated lighting. This design creates soft, warm lighting environments that enhance the atmosphere of the space without causing glare, while highlighting the natural character of the timber.

Environmental commitment and certified quality

Fractal backers are made from timber sourced from sustainably managed forests, demonstrating a deep commitment to quality and respect for the environment. They are PEFC and FSC® certified, guaranteeing sustainable forest management, and comply with CE marking, ensuring their conformity with European standards.

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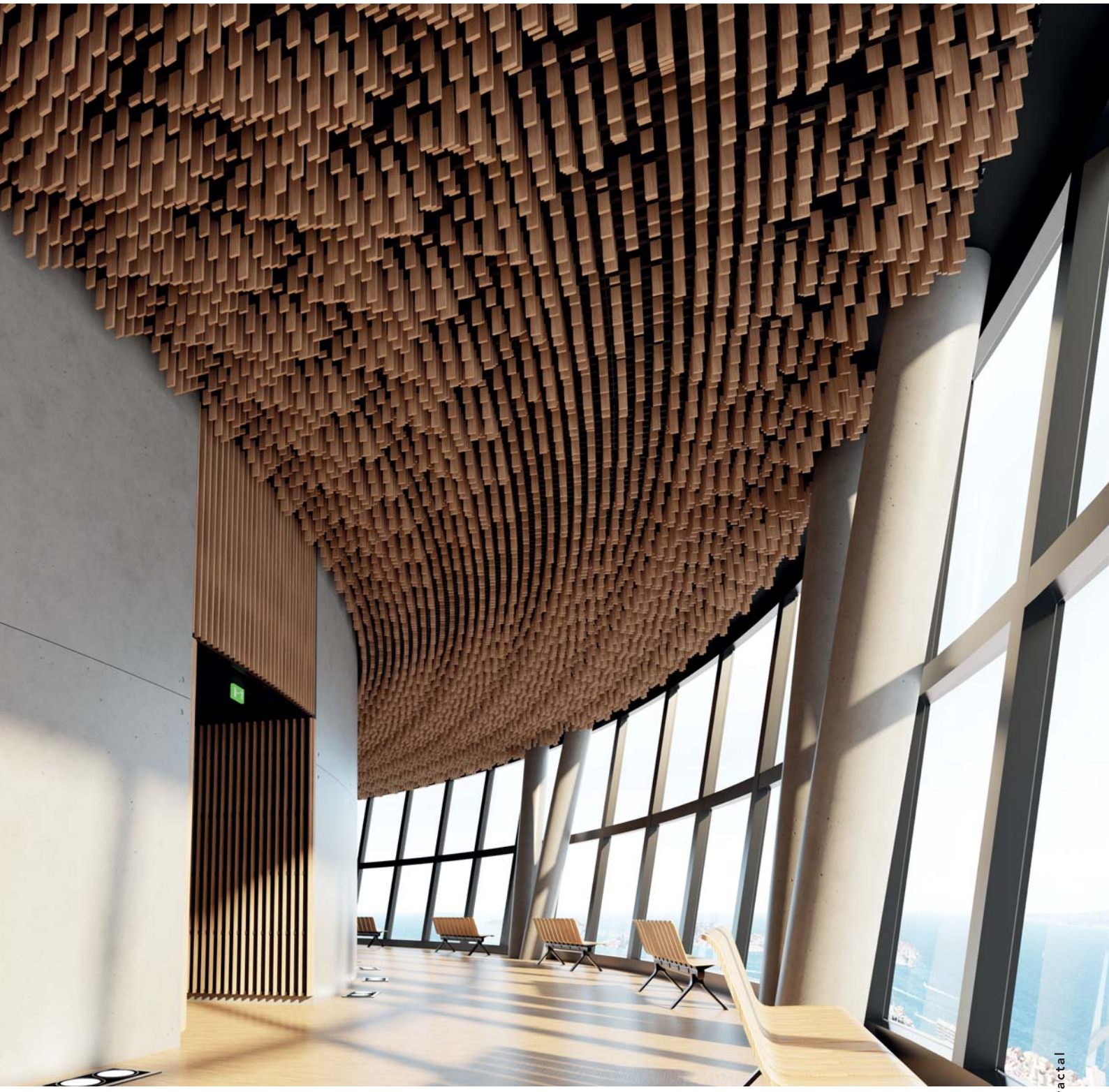

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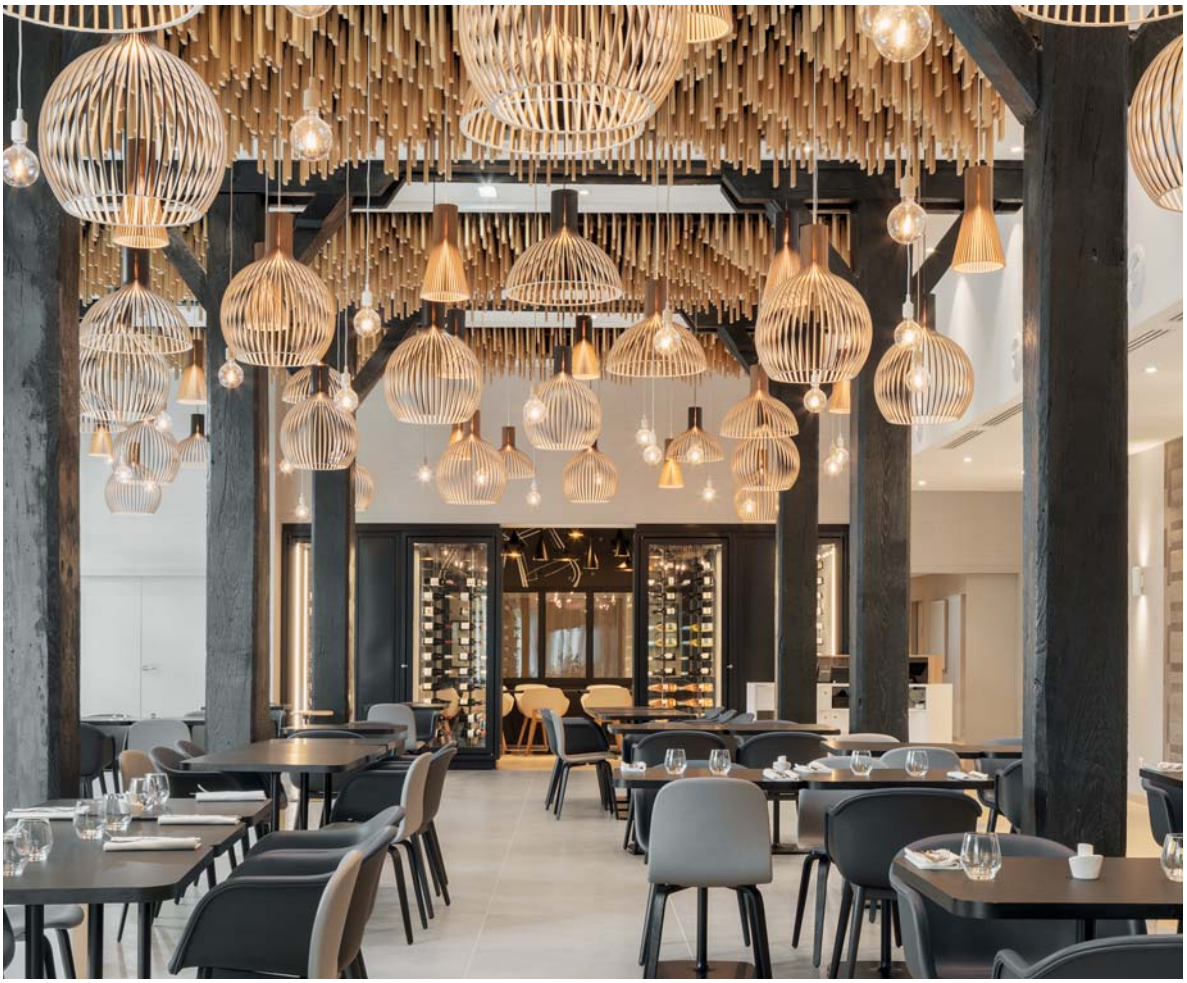
Fractal

INSTALLATION:

In accordance with NF EN 13964
In accordance with DTU 58-1

Hilton Flandres la Villette, Île-de-France - CALQ and STUDIO 28



© Schnepp Renou

TECHNICAL SPECIFICATIONS

Dimensions of 1 row of 7 backers	1,095 x 600 x 325 mm
Dimensions of 1 backer	1,095 x 325 x 60 mm
Slat cross-section	68 x 20 x 100 to 325 mm
Slat spacing	69.5 mm
Centre distance of slats:	137.5 mm
Black rear slats	30 x 60 mm
Timber species	Pine, oak, beech
Pine weight*	20 kg/m²
Oak weight*	26.2 kg/m²
Beech weight*	25.3 kg/m²

* with metal bar and without acoustic padding for 7 assembled backers.

Back: rigid acoustic rockwool slabs (2.4 kg/m²), covered with black fleece finish (size: 1,200 x 600 mm; thickness: 20 or 22 mm).
Not supplied by Laudescher.

REACTION TO FIRE (IN ACCORDANCE WITH EN 13501-1)

Fireproofing available on request.

ACOUSTIC COMPLEMENT
included, at buyer's option

Acoustic absorber made from rockwool

Eco-sourced acoustic absorber made from seaweed

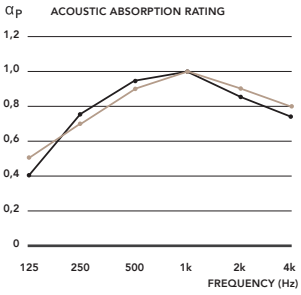
ACOUSTIC PERFORMANCE

FRACTAL
+ **Seaweed35 mm** on E150 mm plenum
or + Seaweed 35mm on E300 mm plenum

The soundabsorption has been measured in accordance with standard ISO 354.

Tile dimensions	600 x 1,100 mm
Thickness	35 mm
Density	133 kg/m³
Environmental performance (data from a certified EPD)	Data from a certified EPD: Global warming potential for A1-A3: -1.75 k CO2-eq/m²

The soundabsorption has been measured in accordance with standard ISO 354.



WEIGHTED INDEX:
α_w = 0.90 / 0.90

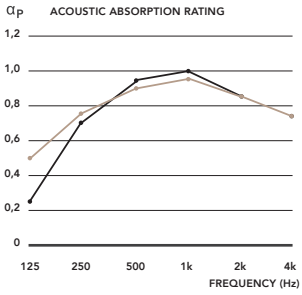
ABSORPTION CLASS:
Class A / Class A

FRACTAL
+ **22 mm rockwool** on E150 mm plenum
or + 22 mm rockwool on E300 mm plenum

The soundabsorption has been measured in accordance with standard ISO 354.

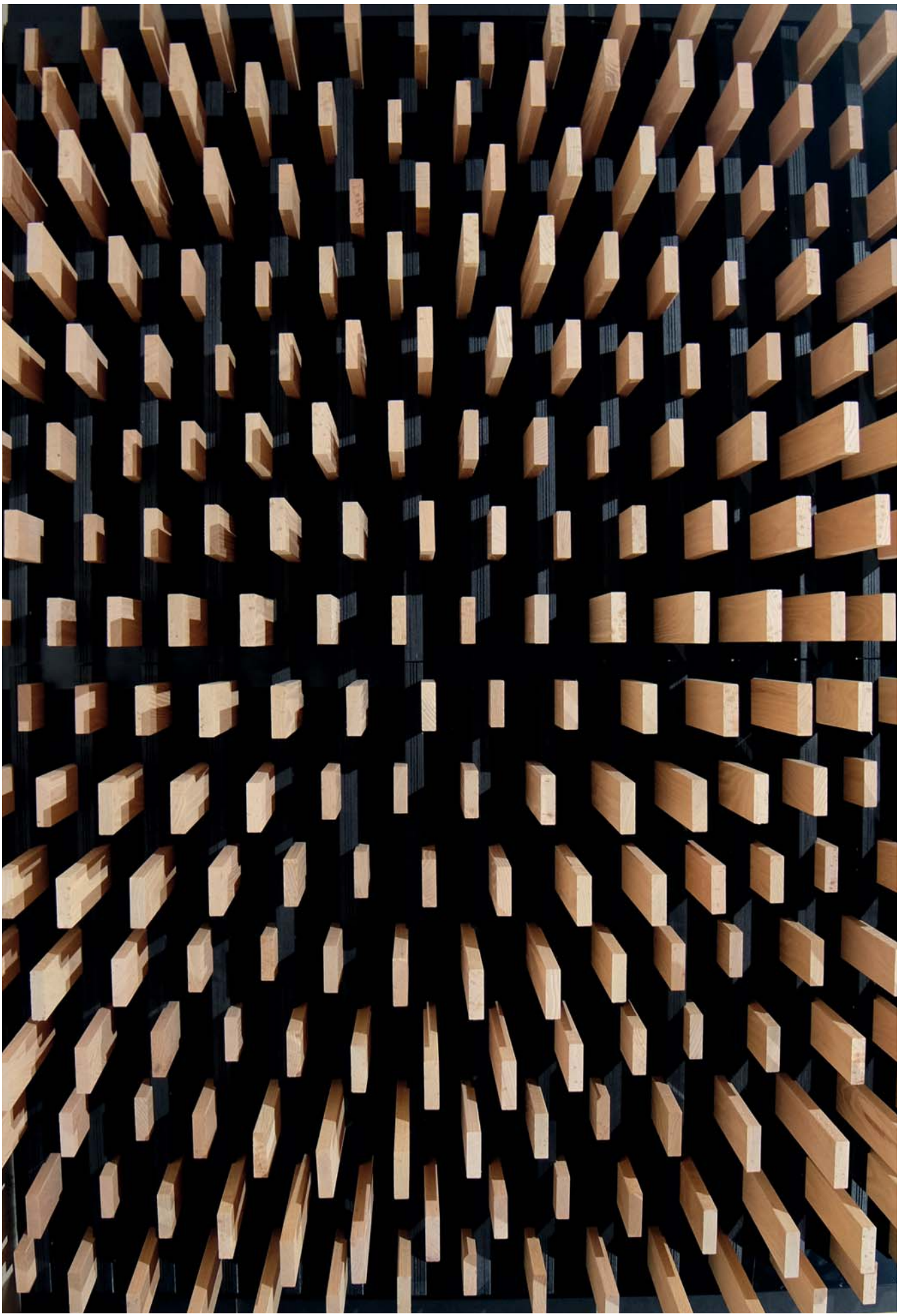
Tile dimensions	600 x 1,200 mm
Thickness	22 mm
Density	100 kg/m³
Environmental performance (data from a certified EPD)	Data from a certified environmental and health declaration form (FDES): Global warming potential for A1-A3: 3.46 kg CO2-eq/m²

The soundabsorption has been measured in accordance with standard ISO 354.



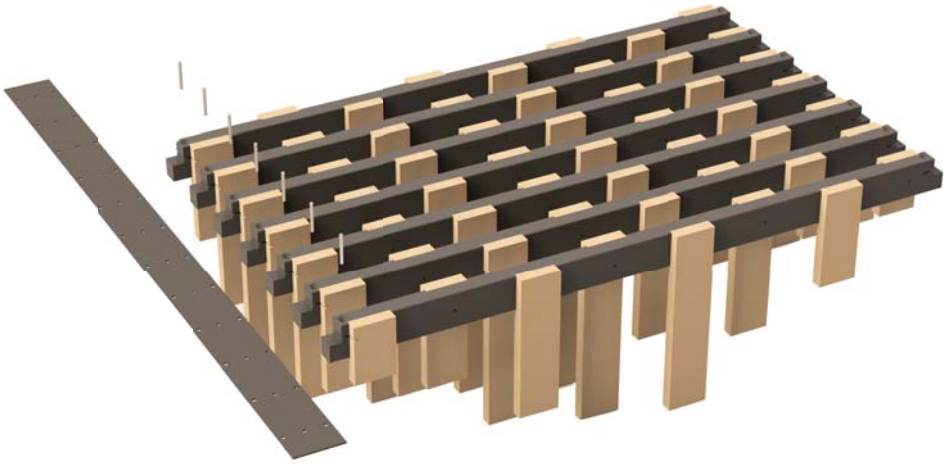
WEIGHTED INDEX:
α_w = 0.90 / 0.90

ABSORPTION CLASS:
Class A / Class A

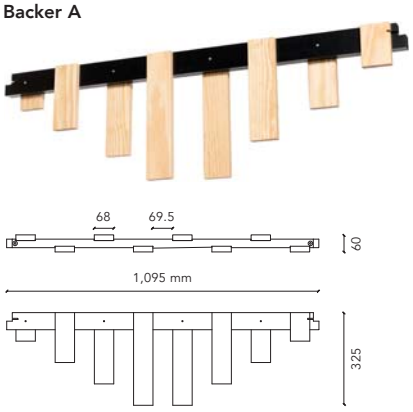


Fractal composition

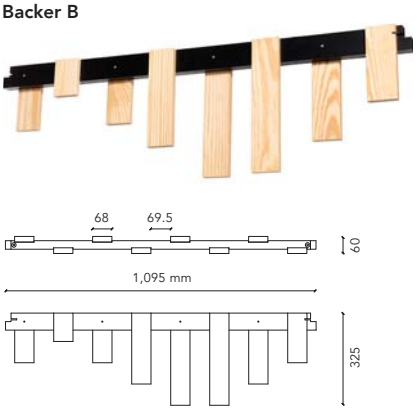
1 Fractal pattern consists
of 7 backers, chosen from the 4 available,
assembled using metal bars and pins.



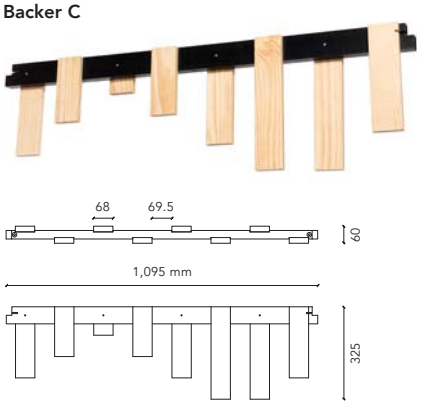
Backer A



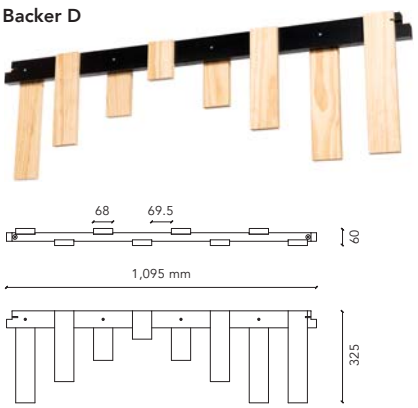
Backer B



Backer C

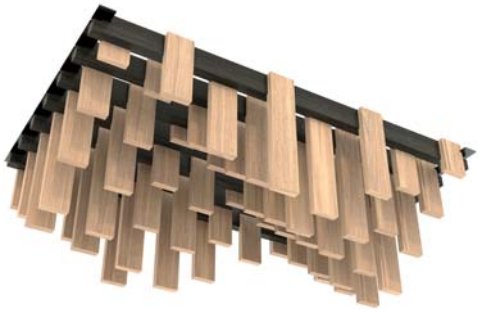


Backer D



There are 2 structures available for creating patterns.

WAVE PATTERN



To create this wave pattern, the backers are arranged in the following order:

A - B - C - D - D′ - C′ - B′

RANDOM PATTERN

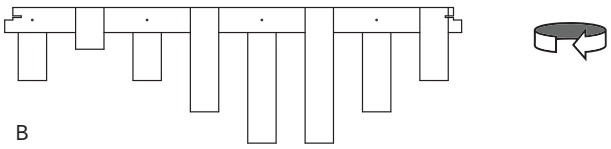
To create this random pattern, the backers are arranged in the following order:

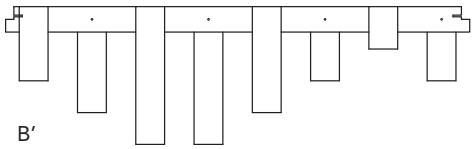
A - B - C - D - D - C - B

The order of the modules can be changed during installation to achieve a different visual effect.

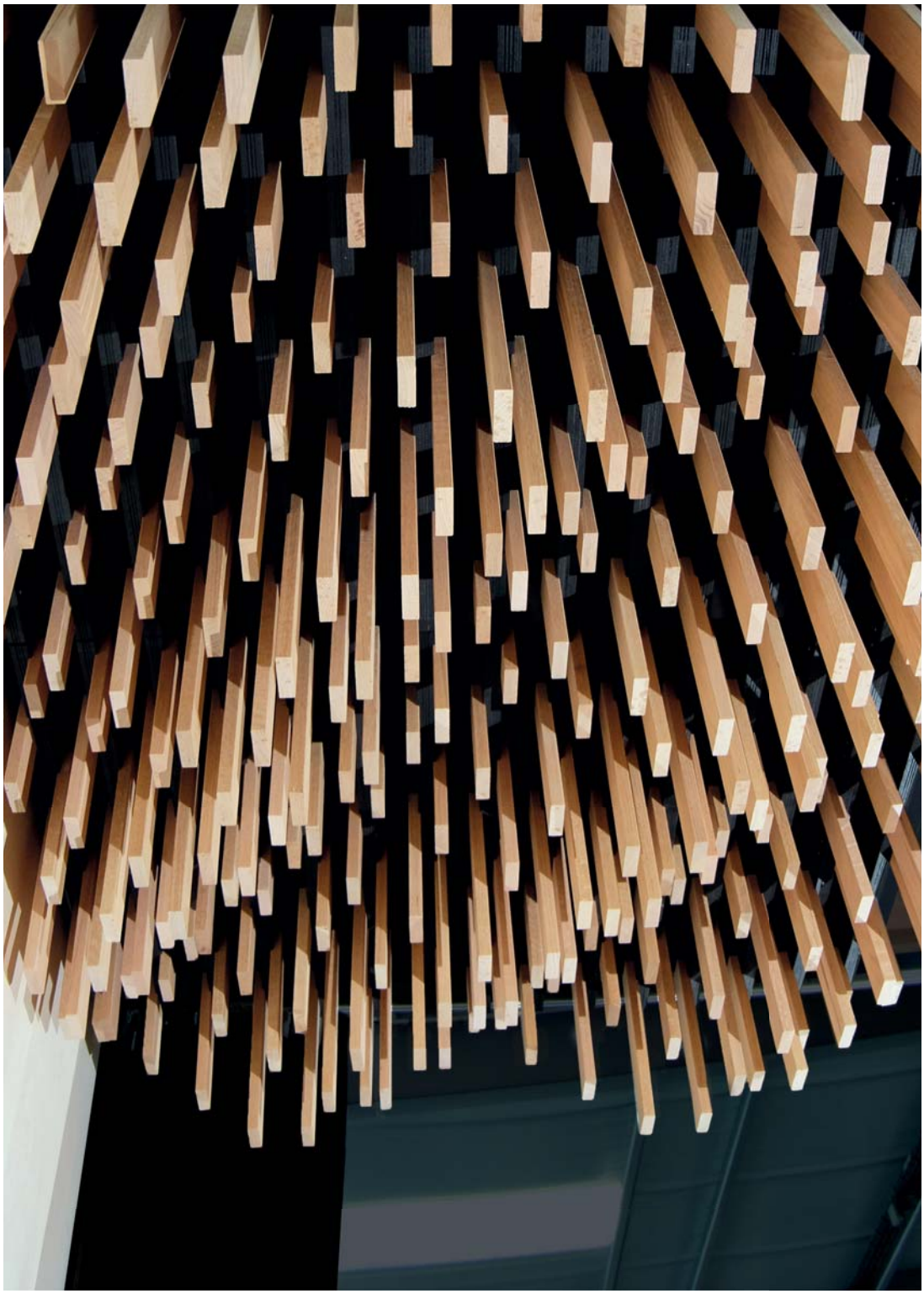
B′ - C′ - D′ are inverted backers.

Example: Backers B and B′ (the mirror image of B).





Fractal ceilings are customisable, and we can assist you with any non-standard requests regarding length or shape.



Wave pattern

Timber species & finishes

Timber species*

Pine

Beech

Oak

Finish Wax color

White

Douglas fir

Oak

White oak

Cenza

Green

Wenge

Black

Other colours available on request.

*Clear varnish can be added for sensitive environments.

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This brochure is printed on paper that is FSC-certified and Cradle to Cradle Certified®.

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