# Acoustic Acoustic Panel Panel Yoriginal

### **SOMMAIRE**

### Stereo

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The team at Texaa® is proud to offer a highly professional follow-up service for the full duration of our products' life and we will, upon request, replace fabric covers which are over 20 years old or redesign the layout of panels using new fitting methods.

1984: the first **Stereo** panels suspended from the ceiling above a swimming pool.

# Stereo, original

**Texaa®** was the first company to make sound absorbing panels for use within open volumes and was a precursor in the field of acoustic objects, a technique which has since become a reference in the world of architecture.

Our products have been enhanced over the last four decades, their range increased and acoustic performance heightened, but still the men and women who produce them to order in our workshops check them individually, one by one.

**Stereo** panels are composed of a white AF1 felt inserted into a metal frame and protected by a fabric cover. The highly specific knit of the **Aeria\*** textile used adds a certain sensuality, available in a rich palette of 22 colours. The panels meet stringent demands in terms of fire safety and respect for the environment, thereby improving the air quality of spaces in which they are fitted.

**Stereo** panels are not only aesthetically pleasing, but also hard-wearing and functional.

- - -

At once sturdy and versatile, Stereo panels are easy to clean and have removable covers. The fitting methods used mean that it is possible to redesign their layout and install them anew.

<sup>\*</sup> Aeria, our sound transparent textile with an exclusive Texaa® patent, see page 31

# acoustic solutions for architecture

Whatever a building's status or vocation, what is referred to as its 'architectural quality' is immediately perceptible through our five senses. Acoustic comfort is an important factor in our relationship with the works of architecture in which we live and work.

**Stereo** panels, like all products in the **Texaa®** range, aim to serve a given building's design and use by controlling sound echo, while still meeting formal requirements.

Depending on whether they are to be visible on one or both sides, **Stereo** panels come in single-sided and double-sided versions.

Their layout is determined in such a way as to combine both acoustic and aesthetic considerations, not forgetting recommendations specifically made by acousticians and the client's desiderata. **Stereo** panels are available in a range of sizes, colours and fitting methods, making them easy to use in diverse configurations.

**Texaa®'s** responses to architectural and acoustic requirements take on numerous forms of which **Stereo** panels are but one. Our range also includes the **Strato** breathing ceiling, **Vibrasto** acoustic materials, **Abso** objects, curtains and blinds.



Single-sided **Stereo** panels cladding a ceiling and double-sided panels used against a wall. Pessac, Maison des Arts, Bordeaux Montaigne University, arch. Massimiliano Fuksas, 1994. Rehabilitation: Poggi Architecture, 2013.



# single-sided Stereo panels

**Stereo** panels are available in a wide range of designs.

Used in isolation or grouped together, fitted to walls or ceilings or suspended into empty space, **Stereo** panels may be used in an infinite array of combinations. The may be implemented in response to widely varying needs, for example, treating a given volume as a whole or providing pinpointed treatment for a specific portion.

They offer not only an extremely high level of acoustic performance, but also contribute to a space's overall staging and design.

**Stereo** panels evolve through time along with the spaces they inhabit – they are easy to take down and just as easy to refit in a new layout.

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The metal frames and means of production of **Stereo** panels guarantee the strict geometric form of each element and therefore perfect precision in their assembly.

Left:

Paris, Goethe Institute, Arch. Richter+Piquard, 2008





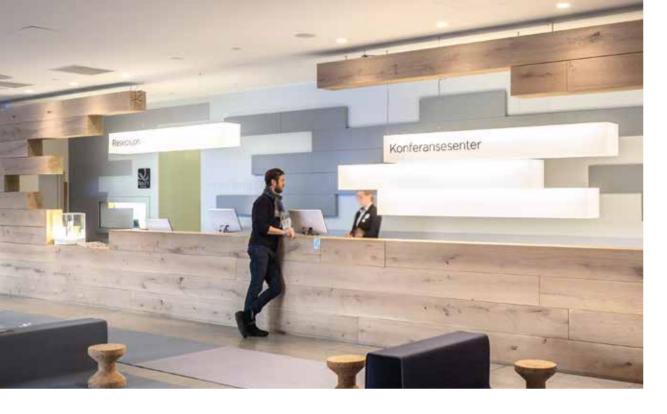
The layout and choice of colour for **Stereo** panels greatly effects their visual impact.

Above:
Paris, entrance hall of Sciences Po, arch. agency Sahuc & Katchoura, Claire Leroux, architect, 2010

Left:

Talence, Yamato restaurant, 2017

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The high quality of their finish, rich colour range, simplicity of implementation and infinite variety in layout make **Stereo** panels a source of inspiration for designers.

Above:

Norway, Fornebu, Quality Hotel Exhibition, Interior designer: Haptic Architects, London, 2011

Right:
Pantin, entrance hall to the Cité des Métiers Hermès,
Agence RDAI Architecture, acoustics CIAL,
economist AEI, 2012









### **Custom-made panels and integrated fittings**

**Texaa®** analyses its clients' specific needs and has a made-to-measure service at its workshops so that personalised solutions may be provided for each and every situation.

Over and beyond the multiple possibilities offered by the existing range, the fact that each **Stereo** panel is produced individually means that custom-made solutions are readily available, to accommodate integrated fittings for lighting, sound or video, for example.

Our acoustic **Aeria** fabric may also be personalised through colour, embroidery or printed motifs.

Above

single-sided **Stereo** panels across a ceiling and **Vibrasto** over a wall. Bormes-les-Mimosas, Municipal Council Meeting Hall, Interior designer: Jean-Paul Mathieu, Toulon, 2017

Left:

Genas, municipal wedding hall,

Métropolis Architectes et Associés, architect Eric Nouvel, 2017

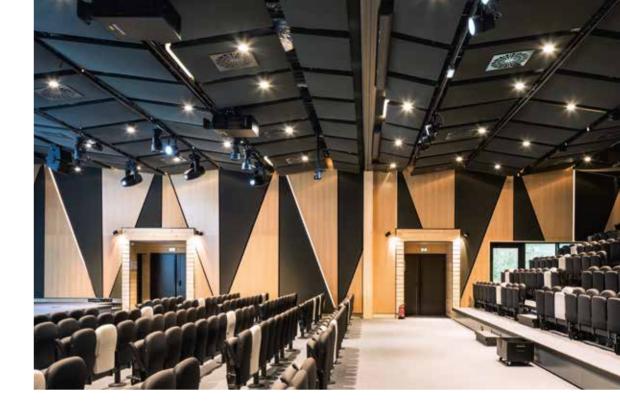
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Page following:

Paris, Dauphine university cafeteria, architects Beguin & Macchini, 2008







### **Mastering acoustic complexity**

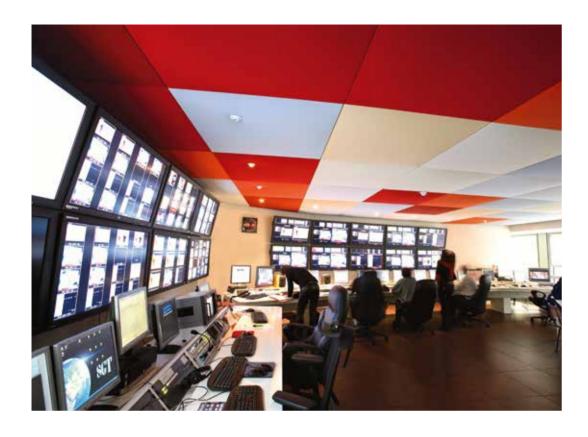
Regular discussion and debate with acousticians and our own laboratory research\* enables **Texaa®** to respond meaningfully to complex acoustic questions in environments with specific needs or large volumes. Whether the solution be creating seamless acoustic clouds or using sound reflecting and sound absorbing panels in intelligent combination, the **Stereo** range provides a wealth of solutions.

### Above:

Alternating single-sided **Stereo** panels and sound reflecting panels clad in **Aeria** covers across the ceiling, with **Vibrasto 03** cladding a wall. Clairefontaine-en-Yvelines, Pernod Ricard University, Domaine de la Voisine, agency Cyril Durand-Behar Architectes, acoustician: Impact Acoustic, 2016

### Left:

Hauts-de-Seine, L'Ode – conservatoire de Vanves, architects Babin+Renaud, architect and acoustician Anne Houel: ACV acoustique, 2016

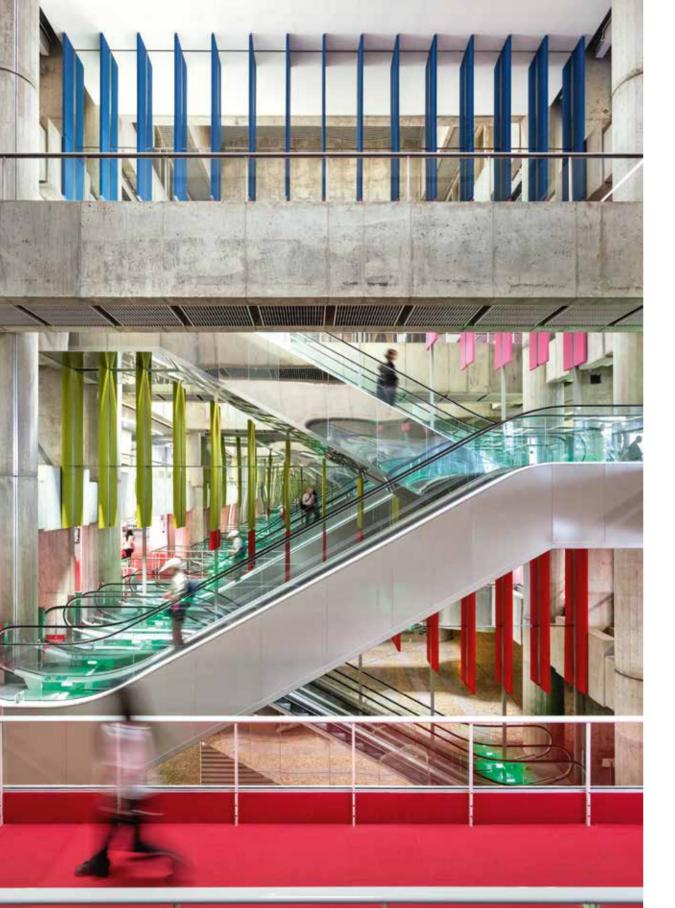


Above: Paris, control room for TV station TV5 Monde, arch. Frédéric Druot, 2006

Right:
Paris, entrance hall at Versailles railway station,
Arch. Gares et Connexions, Arep, DGia, 2015



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# double-sided Stereo panels

Double-sided **Stereo** panels provide efficient, aesthetic solutions for treating the acoustics of large volumes in which all sides of the panels are visible. They may be used to enhance acoustic comfort, demarcate separate spaces or create quiet zones.

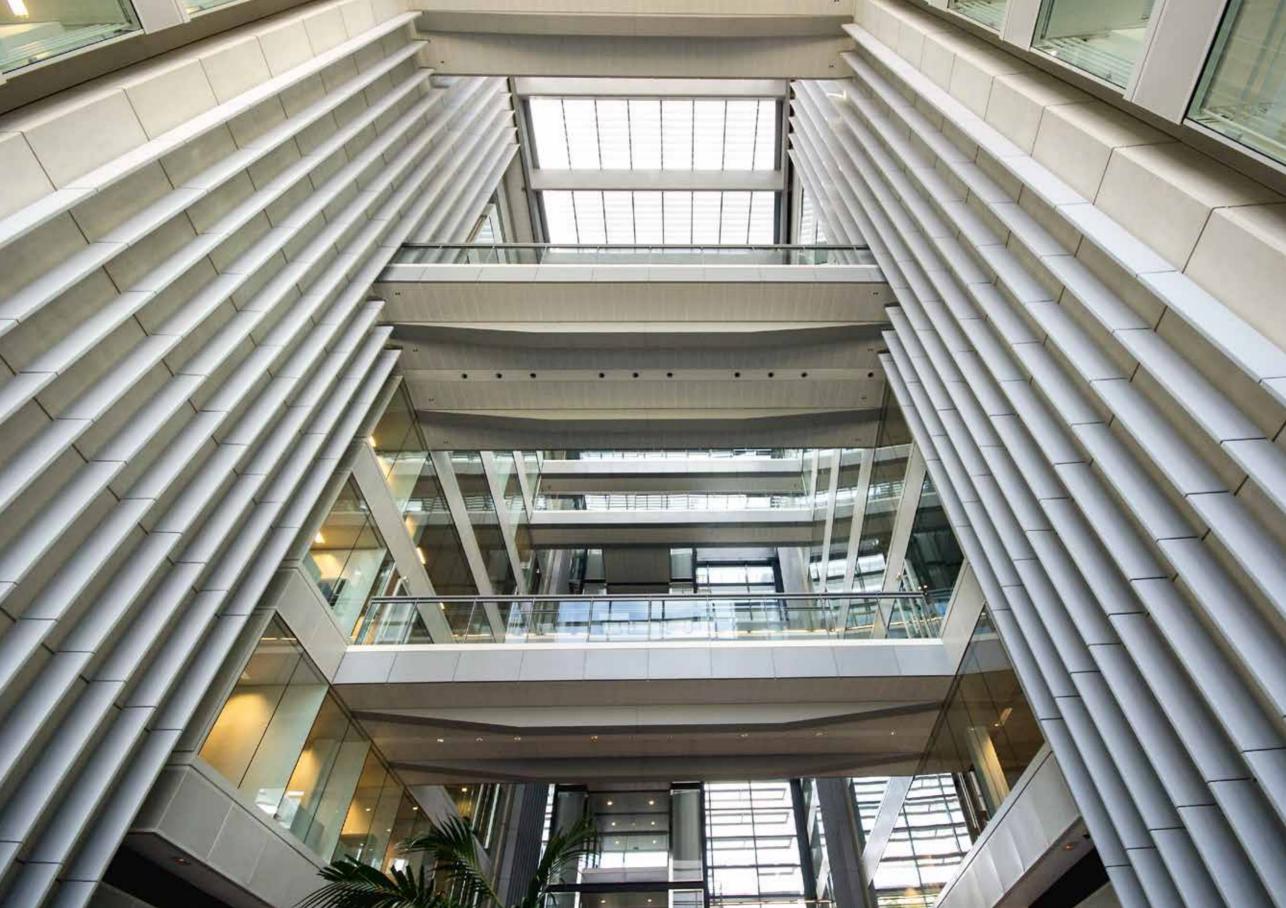
At once sturdy and very light, double-sided **Stereo** panels may be suspended from the ceiling or free-standing. They may be used in clusters or in isolation and are fitted at a height suited to the intended usage of a given space.

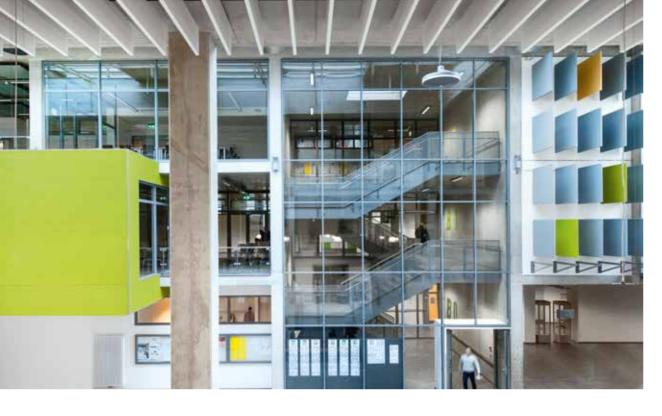
Their design is the fruit of forty years of expert experience in this field and they are hard-wearing and reliable. Just like the single-sided panels, double-sided **Stereo** panels may be fitted with new covers or taken down and refitted in a new layout.

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The covers on both sides of double-sided **Stereo** panels are easy to remove. This makes them easy to either clean or change.

Left:
Bordeaux, Mériadeck library, one of the largest in France, covering some 24 000 m².
Arch. Bernard Trinqué, Jacques Tournier,
André Crésy and Jean-Raphaël Hébrard, 1991
Rehabilitation: Poggi Architecture, 2013







The precise geometric shape of double-sided Stereo panels makes them an integral part of the architecture, whether they be deployed across a wall, ceiling or floor space, and fitted using clips or suspended.

Above and right:
Double-sided **Stereo** panels suspended vertically with **Vibrasto** cladding a wall (vert kiwi).
Luxembourg, Mersch Technical College,
Arco-Architecture Company, acoustic engineering; SCP Acoustique, 2014 ---

Opposite:

Double-sided **Stereo** panels suspended from a ceiling, Lycée Victor Hugo in Lunel, architect Pierre Tourre, acoustician Pialot Escande, 2009

Preceding page: Boulogne-Billancourt, entrance hall to an office block, arch. Foster+Partners, 2008



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### **Enhancing acoustics, redesigning space**

Double-sided **Stereo** panels may be used to introduce visual and acoustic differentiations, creating individual spaces within a larger volume. Used as partial separations, suspended or free-standing, double-sided **Stereo** panels provide modular acoustic solutions to fit any given space and which may be redesigned over time.

Above: Germany, Stadtwerke Solingen, Acoustician: Claudia Stüzer, 2012

Left:

Lyon, Chevreul library, Lyon Lumière University, architect Alain Lelievre and Nesso Architectes, 2017

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Above: Lyon, Chevreul library, Lyon Lumière University, architect Alain Lelievre and Nesso Architectes, 2017

Right:
The feet of **Stereo** panels are available in either brushed stainless steel or lacquered white steel, see page 39.
Blanquefort, Bardinet, LAH/AT Architectes, 2015





# Aeria, textile and colours

At once warm, sensual and technically sophisticated, Aeria\*, our signature textile, is used to make the covers on all Texaa® products. The variable knit employed in its production makes it almost totally sound transparent. One of its main advantages is that it is treated to repel dirt, but is also highly flame resistant, thereby enabling Texaa® products to meet regulatory requirements for fire protection in buildings open to the public.

**Aeria** is the subject of on-going research and development and is currently produced in three knits, technically adapted to the different products in the **Texaa®** range.

Our colour range is also regularly revisited by Christine Bernos, the architect and colourist who designed the series of reds, blues, greens, greys and beiges which make up the 22 shades available today. The key words behind **Aeria** are sensitivity, technicality and durability, with colours expressing the spirit of our age, enabling each individual to assemble the different acoustic elements in the **Texaa®** range with enthusiastic exuberance or elegant restraint, in tune with the desiderata of the designer or the specific needs of a given space.

Once produced on our knitting machines, **Aeria** is treated with a dirt and liquid repellent which makes it hard-wearing, durable and easy to clean.

<sup>\*</sup> Aeria, our sound transparent textile with an exclusive Texaa® patent





Above:

The thread is prepared with the utmost care to ensure a faultless knit.

Right: The 22 standard colours in which **Aeria** is available.





## acoustics

We all know what it feels like to visit an empty flat, to hear your voice echoing horribly, and then, as it fills up with furniture, curtains and people, it becomes a far more comfortable, cosy and appeasing place. **Stereo** panels do just that job. By absorbing sound waves, they reduce the echo of the spaces in which they are fitted, thereby greatly improving communication, be it through words or music.

The acoustic performance of **Stereo** panels is measured according to the norms of ISO 354 in our own test laboratory. Our methods and results are regularly evaluated against tests carried out by independent organisations.

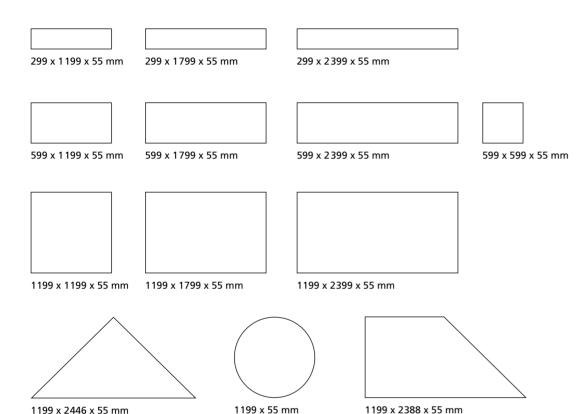
Reports for each testing situation are available on request.

### Left:

**Texaa®** equipped itself with its own echo chamber in the 1990s. Over a hundred tests are carried out each year. Here, testing single-sided **Stereo** panels, 1199 x 1199 x 55 mm at 300 mm from the floor, spacing: 1500 mm.

# technical specifications

### **Shapes available for single-sided Stereo panels**





1199 x 2446 x 55 mm

Single-sided Stereo panels are clad in an Aeria textile cover. The sleeving system makes the cover simple to remove.

### Fitting methods for single-sided Stereo panels



Suspended from vertical cables, in isolation



Suspended from vertical cables, joined together





Suspended from vertical cables, overlaid





Suspended from horizontal cables



Screwed to the ceiling



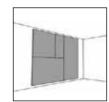
as a canopy

Suspended from vertical cables,

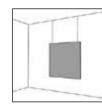
Clipped to the wall, in isolation



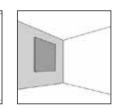
Clipped to the wall, in clusters



In combination



Suspended from vertical cables, against the wall



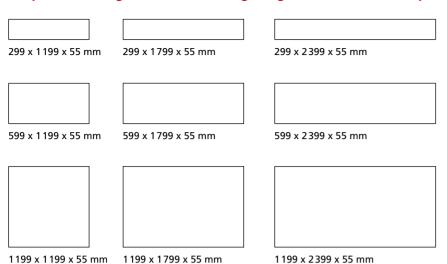
Fitted to metallic partitions with magnets



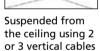
Single-sided Stereo panels with 'top side cover' option. Great care is given to the seams and zips. When the top side is visible (mezzanines, overlaying or canopy configurations), a fully zipped cover clads the entire panel.

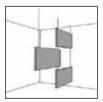
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### Shapes and fitting methods for ceiling hung double-sided Stereo panels

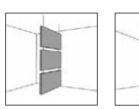




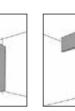




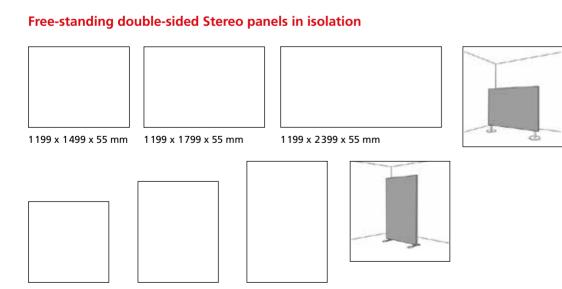
Suspended in clusters using through cables



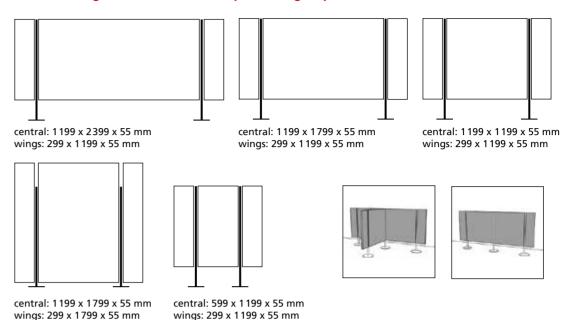
floor and ceiling with through cables



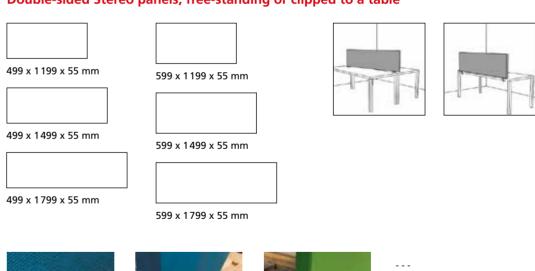
Suspended between Screwed to the ceiling

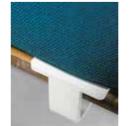


Free-standing double-sided Stereo panels in groups



### Double-sided Stereo panels, free-standing or clipped to a table









The clips and feet of double-sided Stereo panels are available in white lacquered steel or brushed stainless steel, see pages 28-29.





An eye for detail and excellent finishing.

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Precision in corners and bespoke fitting components produces a perfect result.

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Finishing terminal for a suspension cable.

Single and double-sided **Stereo** acoustic panels are available in a wide range of modular formats. They provide efficient solutions for echoing spaces, used across walls, ceilings or positioned in open space.

**Texaa®'s Stereo** panels comprise a metal aluzinc® frame, a white AF1 felt, a black or grey microporous inner cladding and a removable outer cover made of sound transparent **Aeria** textile, cladding one or both sides.

### **Acoustics**

- ceiling hung, single-sided **Stereo** panels in a cluster: absorption coefficient  $\alpha_W = 1$
- ceiling hung, single-sided Stereo panels in isolation 1199 x 1199 x 55 mm: equivalent absorption area  $A = 2 \text{ m}^2$  at medium frequencies

### Reaction to fire classification for complete product

Stereo single-sided/double-sided

Europa: B-s2, d0 - / Equivalent Class 0 (UK) / No flaming droplets or particles

USA: Class A

### **Environmental characteristics**

HOF:

Environmental and Health declaration forms EPD certified by AFNOR (EN 15804)

LEED / BREEAM:

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4 points for: 
- acoustic efficiency
- EPD certified (EN 15804)
- very low emissions of volatile organic compounds and formaldehyde.
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### Performance indicators for Aeria

Hydro-oleo-phobia  $\geq$  5 (AATCC118 and AATCC193) Antistatic properties 7.10<sup>10</sup>  $\Omega$  (EN1149-1)

### Colours

 $\textbf{Stereo} \ \text{panels are available in the 22 colours of the round knit range}.$ 

Colours may be personalised on request.

Colour fastness is always equal or superior to 5, on a scale of 0 to 8.

### Cleaning

Vacuum cleaning, machine washable cover.

Aeria is treated with a dirt and liquid repellent which makes it hard-wearing and easy to clean.

### **Guarantee**

10 years

Data sheets available at texaa.com/documentation

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Texaa® is an independent company employing a team of 55 staff members. Constant exchange with architects and professionals in the building industry inspire the products we develop, manufacture and distribute, designed to enhance the acoustic comfort of the spaces in which we live and work. At once technically sophisticated, hard-wearing and aesthetically pleasing, Texaa® products are characterised by the textile in which they are clad - Aeria\* knitted in our workshops near Bordeaux and available in a palette of 22 colours. Since the company first started out in 1978, it has been our pride and joy to have made a contribution to developing quality architecture in France, Europe, the US and beyond.

News, technical data sheets and updates available at www.texaa.com

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# Texaa<sup>®</sup> textiles, acoustics, architecture

### **United Kingdom**

Lincoln House, 4th Floor 300 High Holborn, London WC1V 7JH

- - -

020 7092 3435 contact@texaa.co.uk www.texaa.co.uk

### USA

2825 East Cottonwood Parkway Suite 500 Salt Lake City, UT 84121

- - -

(801) 783-1231 contact@texaa.com www.texaa.com

<sup>\*</sup> Aeria, our sound transparent textile with an exclusive Texaa® patent