

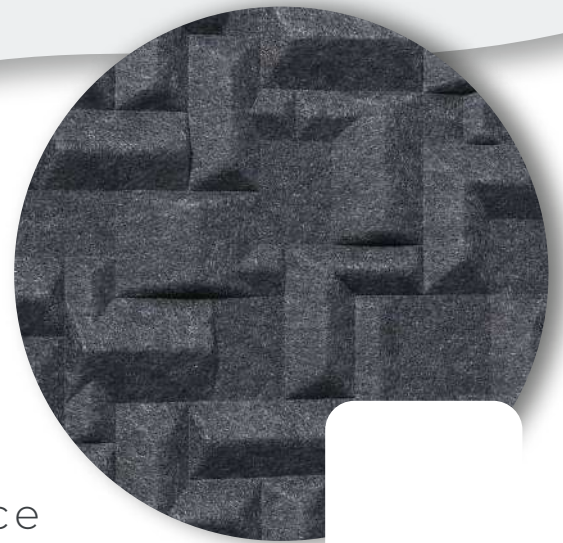
3D Acoustic Tiles

Thermoform Feature Infosheet



3D Acoustic Tiles

“ Fluid and intriguing with its deep undulating curves and dips, 3D tiles bring movement and life to walls, making it a focal point in any room. The depth of panel is designed to give a high sound absorption, resulting in a super-efficient 0.80 NRC. This panel's beauty belies in its true functionality. Made from 100% polyester, with over 50% recycled content. The panels can also be recycled making them an incredible environmentally friendly product.



FEATURES

- — Excellent acoustic performance
- — Environmentally conscious product
- — Low VOC and non-toxic
- — A wide range of designs and colours
- — Easily retrofitted to existing spaces
- — Lightweight and easy onsite handling
- — Improving internal environment by lowering reverberation and background noise
- — Acts as a feature element or a subtle backdrop

3D Acoustic Tiles

Product Specifications

Specifications

Product Name: 3D Acoustic Thermoform Tiles

Composition: 100% Polyester
(min50% +/-) recycled PET fiber.
Made of plastic bottle.

Tile Dimensions: (AO series) : 200mm X 200mm X (30-35mm thk)
(A and C series) : varies*
(B series) : 500mm X 500mm X 60mm
(D series) : varies*
(E series) : 600mm X 600mm X (50-74mm thk)
(U series) : varies*

Functionality and Efficiency

These acoustic panels have two main functions, firstly sound generated in office spaces and meeting rooms bounce or reverberate in a space. Acoustic panels reduce the time, sound pressure waves bounce around in a space resulting in effective audibility and clarity. A good example of this being human voices. Secondly, 3D acoustic panels offer an interesting artistic value and enhances the aesthetic value of any room.

Application and Durability

Reverberation is reduced by offering sound absorbers to increase speech intelligibility in a specific area while reducing background sound noise levels. 3D Acoustic Tiles are mainly for indoor use but can be used in any area that requires acoustic treatments, including areas with high levels of humidity such as swimming pools, as polyester fibre showed only 0.03% absorption of moisture during recent testing where panels were subjected to high humidity of 90% for a five day period. Moisture does not affect polyester and is therefore safe in all indoor applications.

Environmental

No VOCs Green Label Certified, LEEDS criteria. Approximately 50% of which is recycled water/soda bottle. 100% biodegradable and items manufactured without use of formaldehydes, adhesives or other bonding agents.

Product Batch and Variation

Non-woven. Product has directional grain. Product may vary from samples and batch to batch due to fibre blending and lay-up which is an inherent feature of this product and variation on colours may occur as it will be more pronounced beyond the normal commercial range.

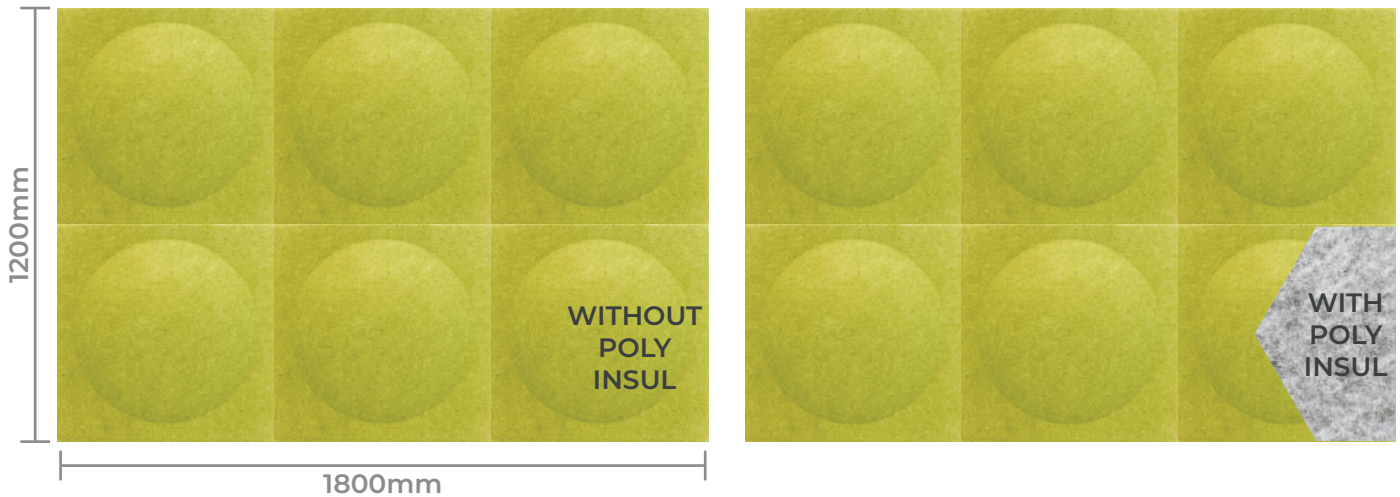


For further information about 3D Acoustic Tiles, please contact ALFA dB or visit our website.

3D Acoustic Tiles

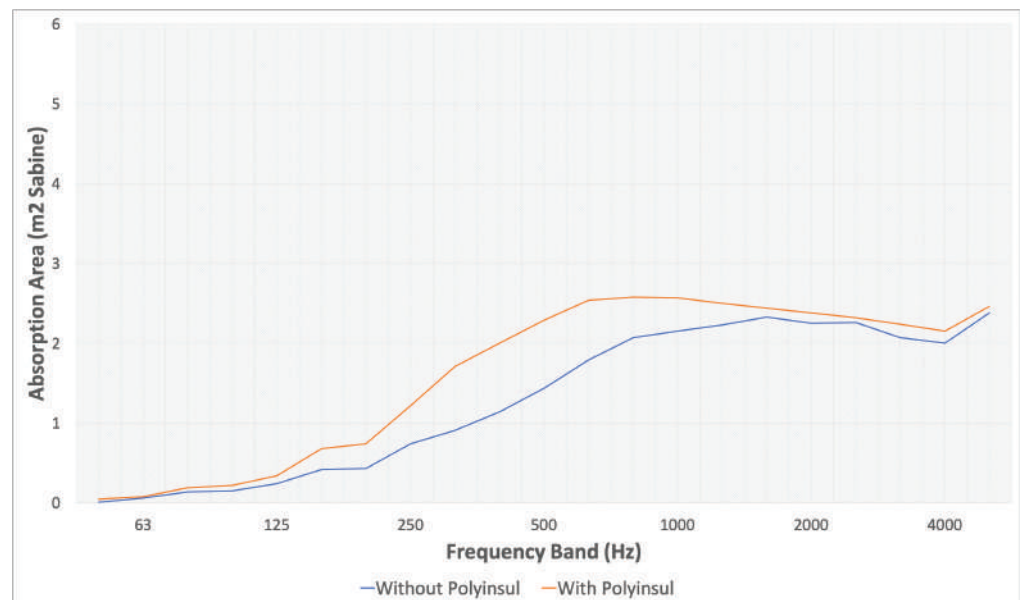
Acoustical Data

6pcs of "E-021P"



Acoustical Performance

Frequency f [Hz]	Sound Absorption coefficient [m ² Sabine]			
	Without Polyinsul		With Polyinsul	
50	0.01		0.05	
63	0.06	0.1	0.08	0.1
80	0.14		0.19	
100	0.15		0.22	
125	0.24	0.3	0.34	0.4
160	0.42		0.68	
200	0.43		0.74	
250	0.74	0.7	1.22	1.2
315	0.91		1.71	
400	1.14		2.00	
500	1.44	1.5	2.29	2.3
630	1.79		2.54	
800	2.07		2.58	
1000	2.15	2.2	2.57	2.6
1250	2.23		2.50	
1600	2.33		2.44	
2000	2.25	2.3	2.38	2.4
2500	2.26		2.32	
3150	2.07		2.24	
4000	2.00	2.2	2.15	2.3
5000	2.38		2.46	

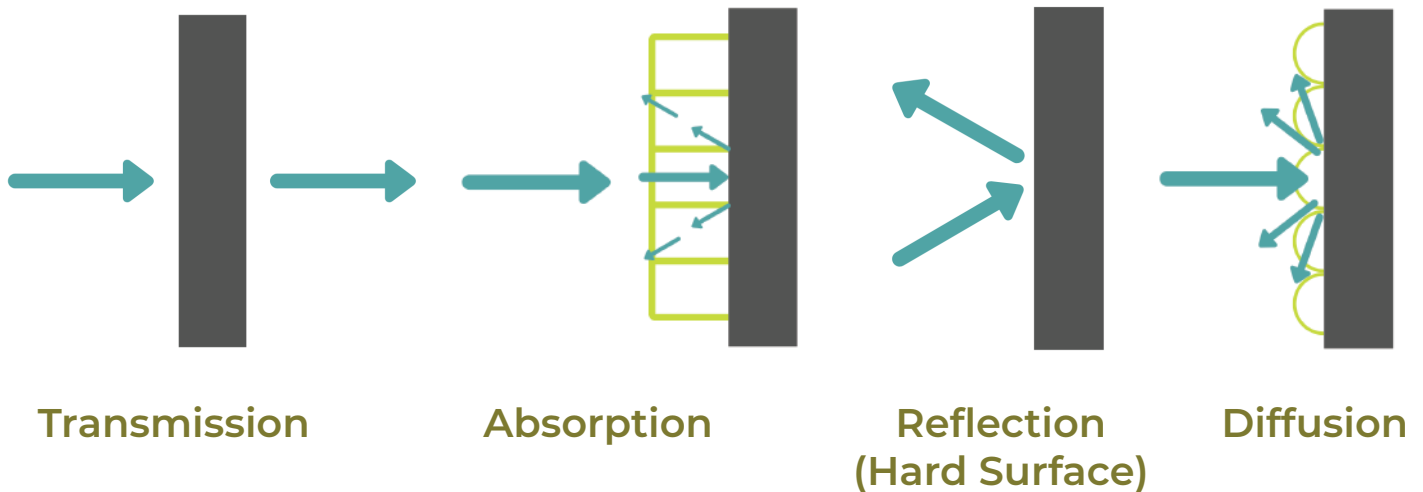


Designed to be used as a lightweight sound absorber in the upper frequency range (500 Hz and above). These panels help reduce disturbing reflections of environmental noise such as voices, telephones etc. When adding the option PolyInsul, an additional filling improve the sound absorption for frequencies below 500 Hz. PolyInsul consists of recycled textile fibers and polyester fibers.

3D Acoustic Tiles

Absorption Information

SOUND INTERACTION WITH SURFACE



Many types of room reflection are factors that affects sound systems. Any kind of reflection off a hard surface may even be almost as loud as how it originally sounded. The most common way to manage undesired sound reflections is through the use of sound-absorbing material. The beauty of these thermoform 3D acoustic tiles is that it serves as an absorptive and diffusive surface, in which it doesn't directly reflect or absorb the sound but spreading it evenly towards many directions in a given environment instead.



3D Acoustic Tiles Design Series

A wide range of designs are available, ranging from our standardized intricate series of pattern to individual tile series. We have collated the best designs you can choose from that best suit your preferences in creating a private space that gives you an acoustic application that performs exceptionally well and looks great for your space too.



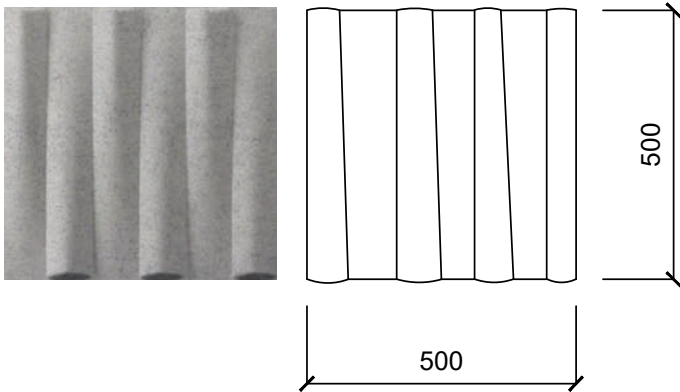
3D TILES DESIGN OPTIONS

“B” Series

500mm x 500mm

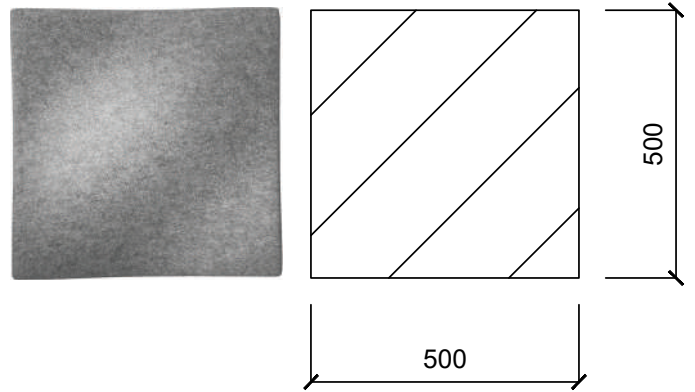
B-002B

Thickness: 60mm



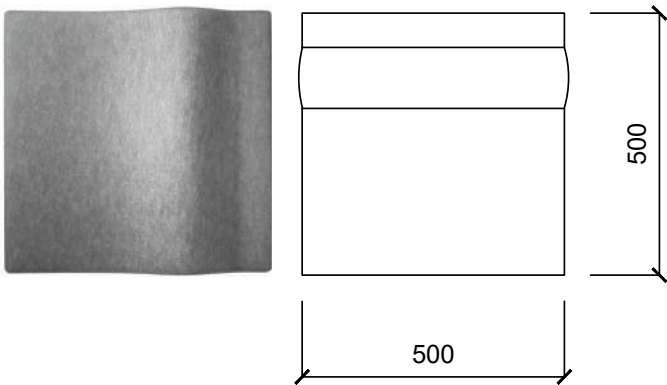
B-003B

Thickness: 60mm



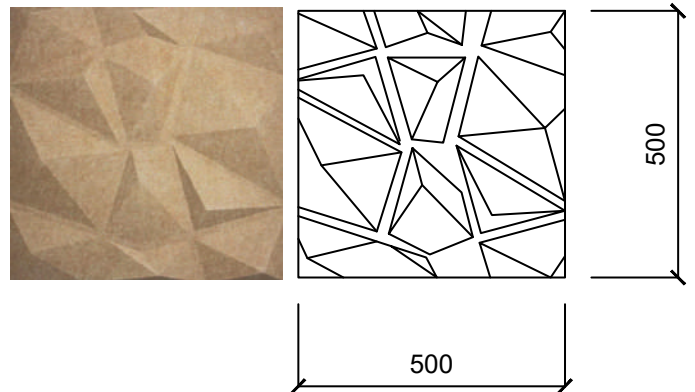
B-004B

Thickness: 60mm



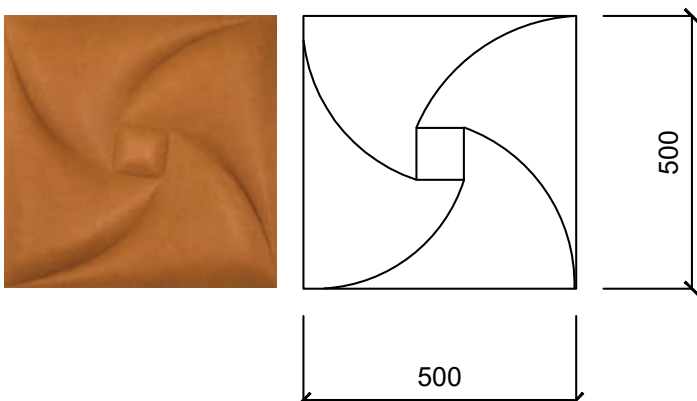
B-024B

Thickness: 20mm



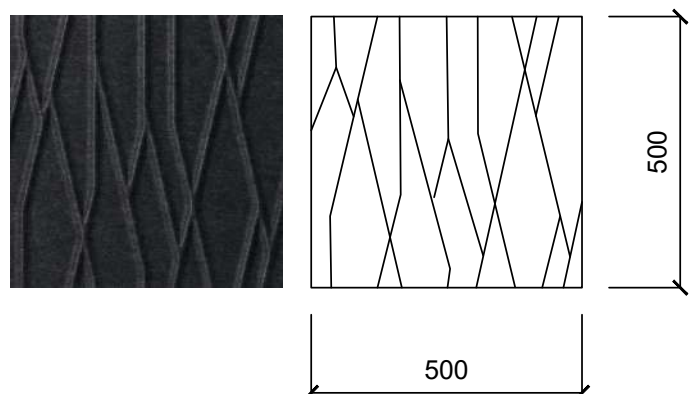
B-035Y

Thickness: 45mm



B-008B

Thickness: 60mm



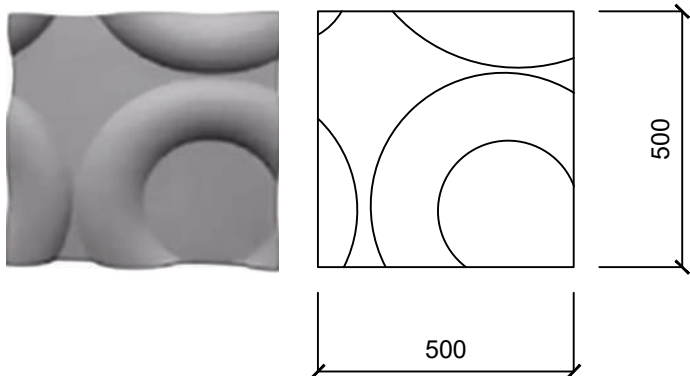
3D TILES DESIGN OPTIONS

“B” Series

500mm x 500mm

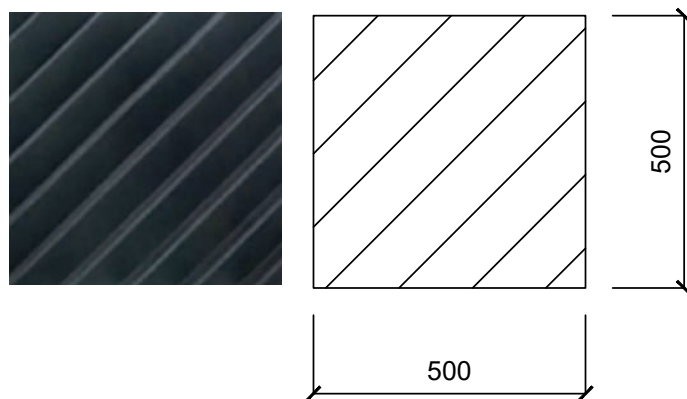
B-009B

Thickness: 60mm



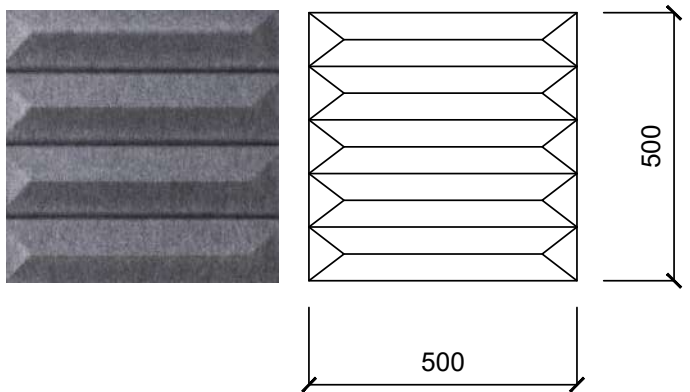
B-007B

Thickness: 60mm



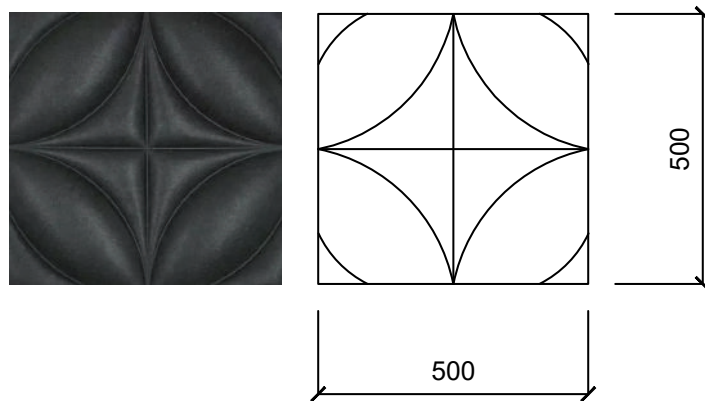
B-040Y

Thickness: 50mm



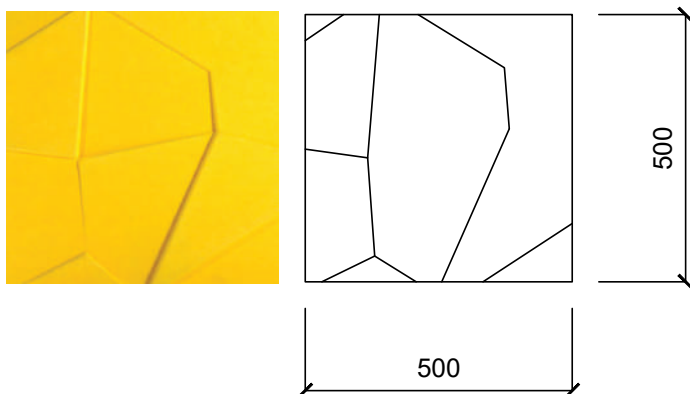
B-036Y

Thickness: 45mm



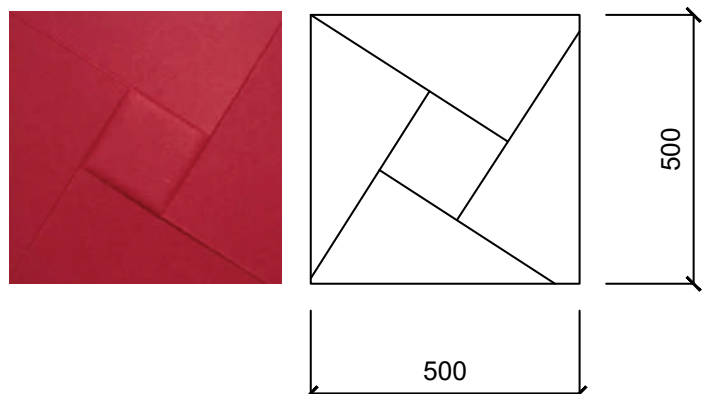
B-027B

Thickness: 30mm



B-031B

Thickness: 30mm



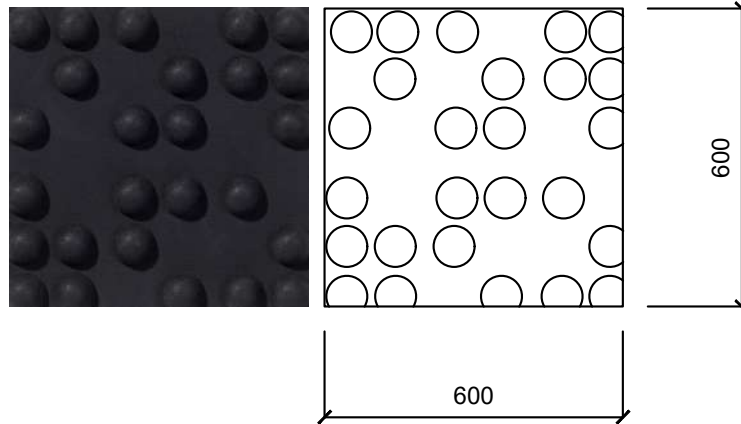
3D TILES DESIGN OPTIONS

“E” Series

600mm x 600mm

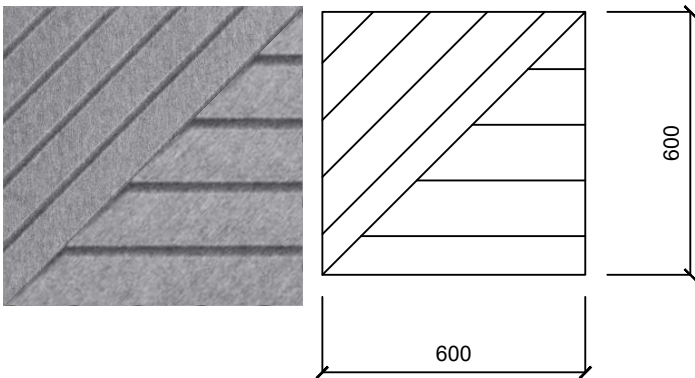
E-015B

Thickness: 74mm



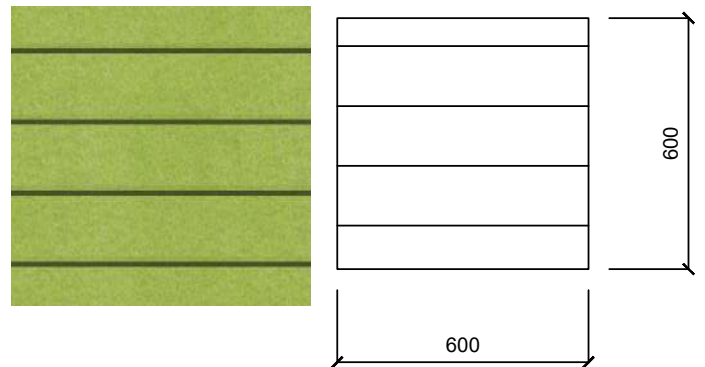
E-026P

Thickness: 50mm



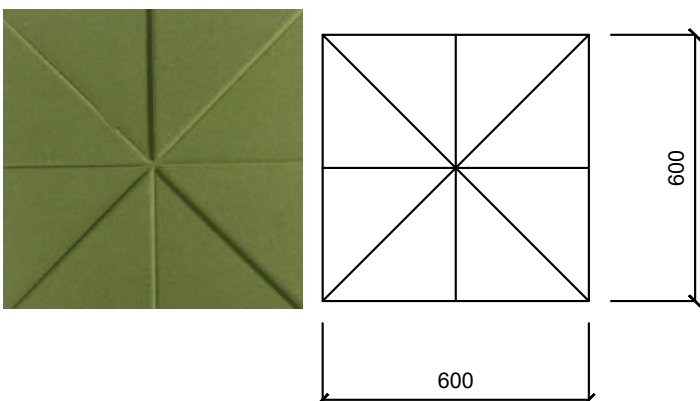
E-025P

Thickness: 50mm



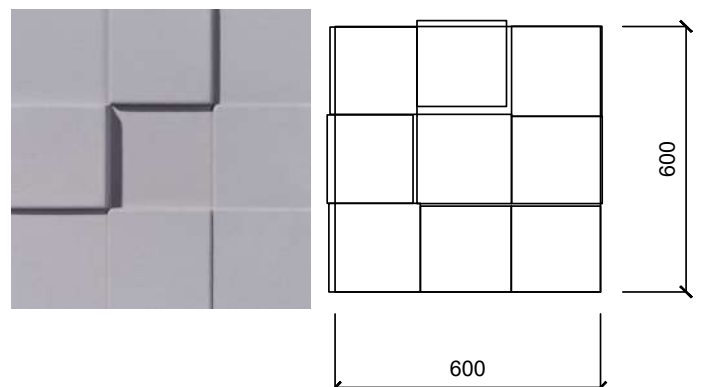
E-012B

Thickness: 74mm



E-010B

Thickness: 74mm

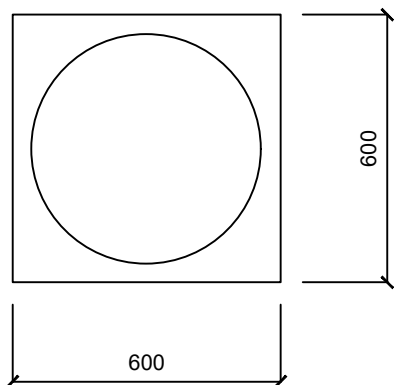


3D TILES DESIGN OPTIONS

“E” Series

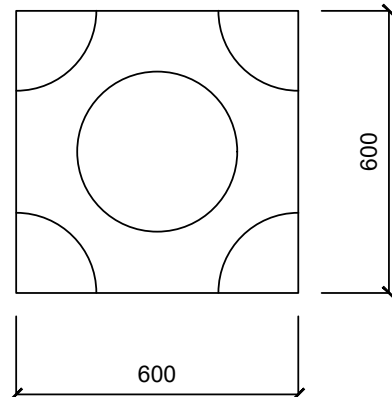
E-014P

Thickness: 50mm



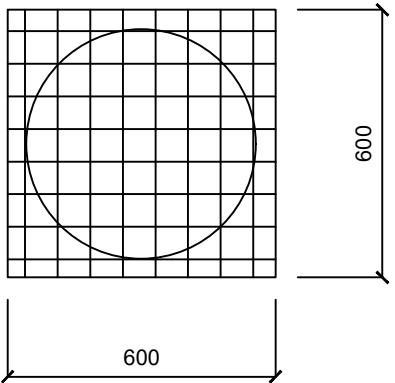
E-020H

Thickness: 60mm



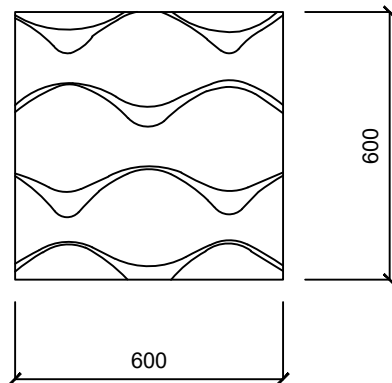
E-021P

Thickness: 60mm



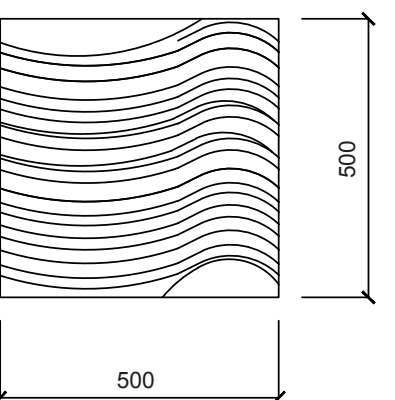
E-023P

Thickness: 74mm



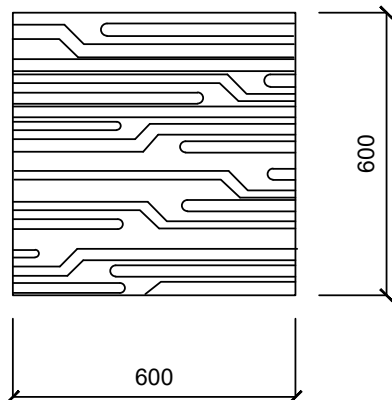
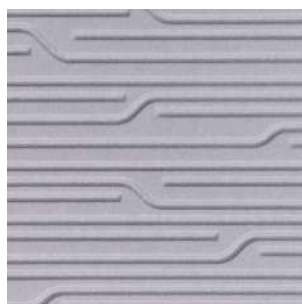
E-017B

Thickness: 74mm



E-018B

Thickness: 74mm



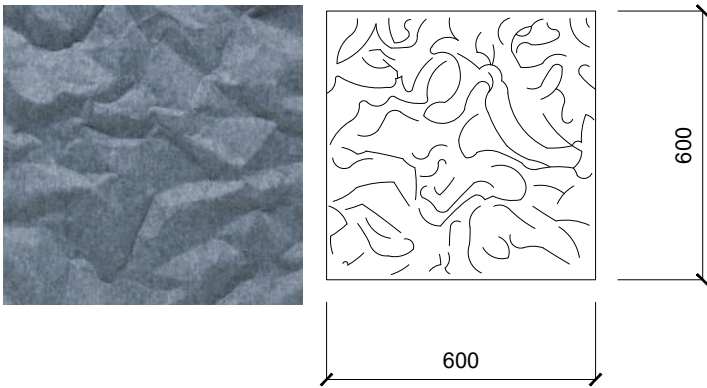
3D TILES DESIGN OPTIONS

“E” Series

600mm x 600mm

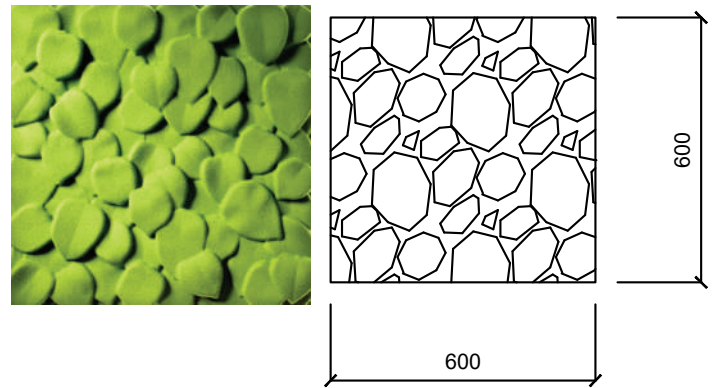
E-024B

Thickness: 74mm



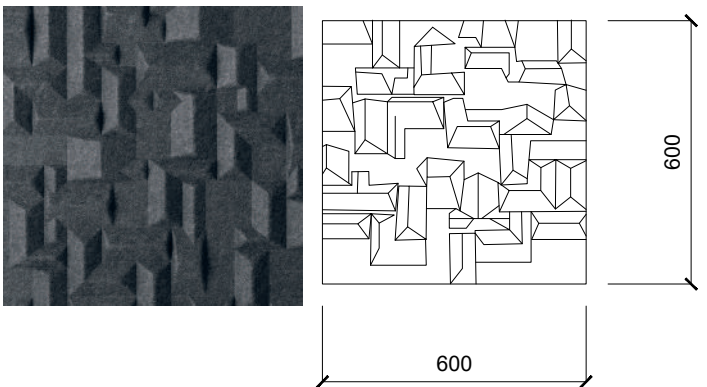
E-009B

Thickness: 74mm



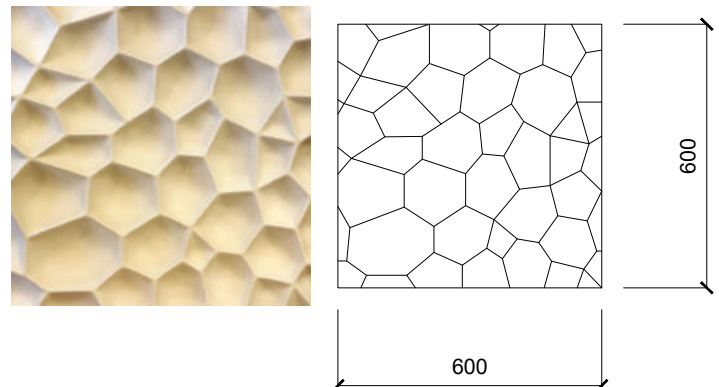
E-011B

Thickness: 74mm



E-013B

Thickness: 74mm



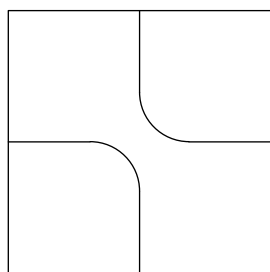
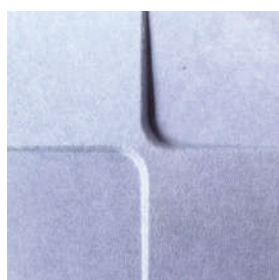
3D TILES DESIGN OPTIONS

“AO” Series

200mm x 200mm

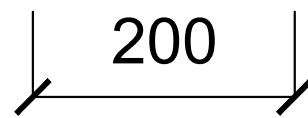
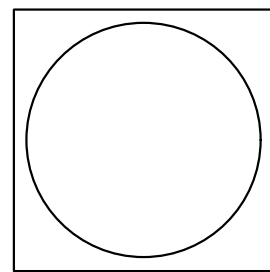
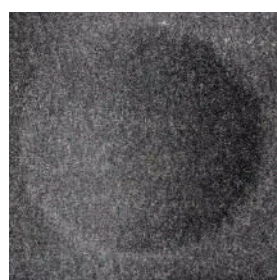
AO-05P

Thickness: 30mm



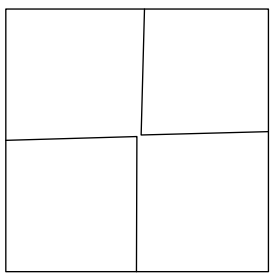
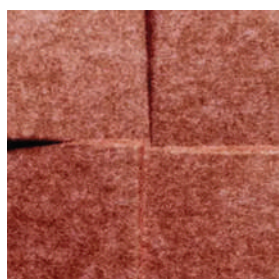
AO-02P

Thickness: 30mm



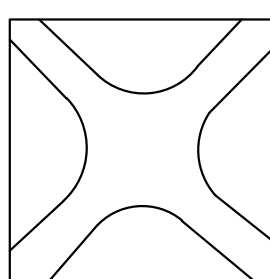
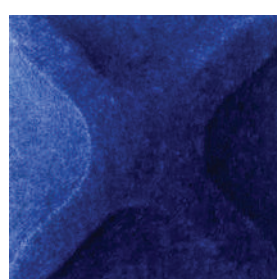
AO-04P

Thickness: 30mm



AO-03P

Thickness: 35mm



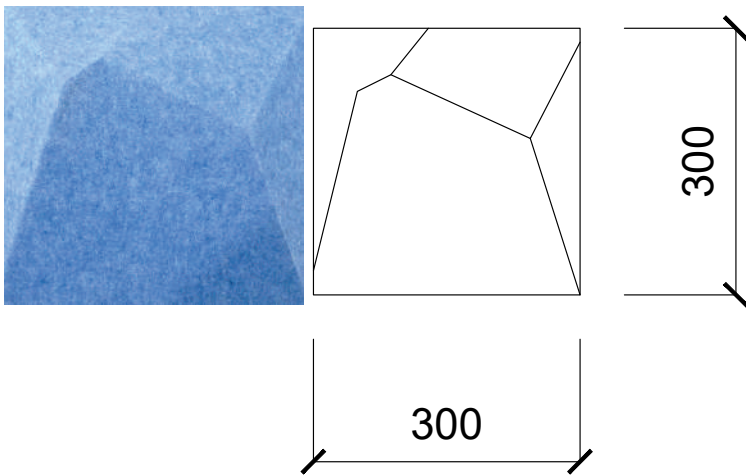
3D TILES DESIGN OPTIONS

“A” and “C” Series

A-Series

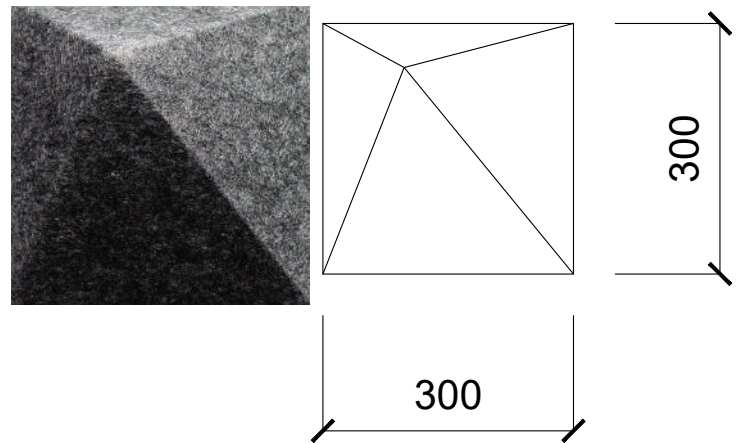
A-022B

Thickness: 100mm



A-007P

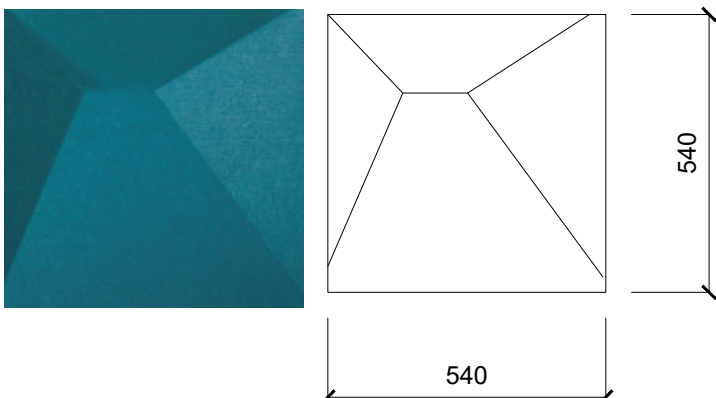
Thickness: 130mm



C-Series

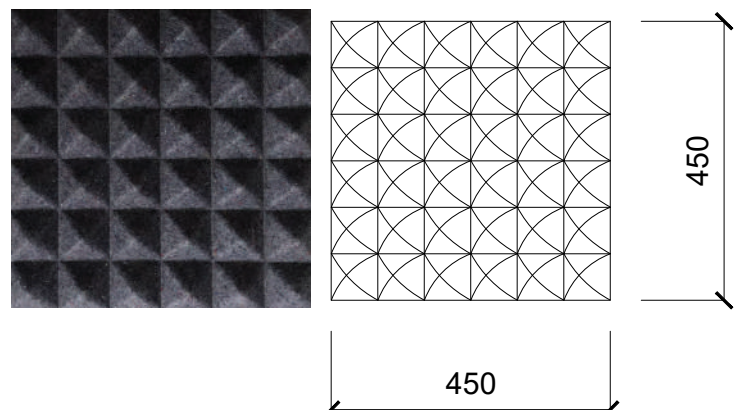
C-001C

Thickness: 130mm



C-002C

Thickness: 50mm

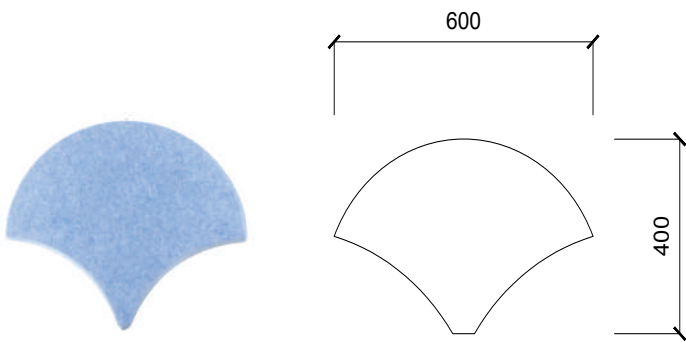


3D TILES DESIGN OPTIONS

“D” and “U” Series

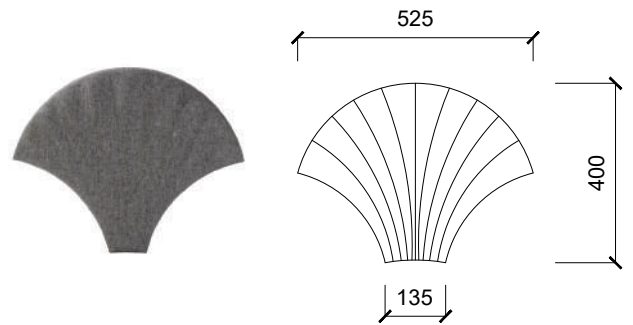
D-008U

Thickness: 60mm



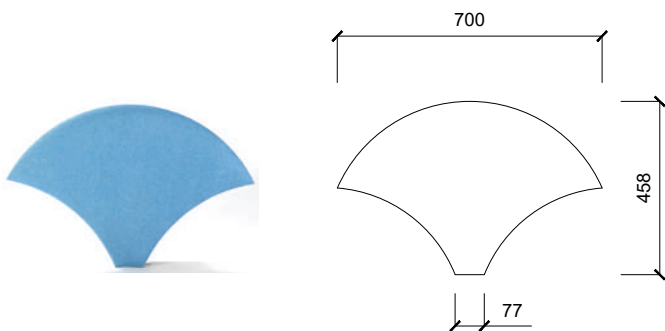
D-046B

Thickness: 60mm



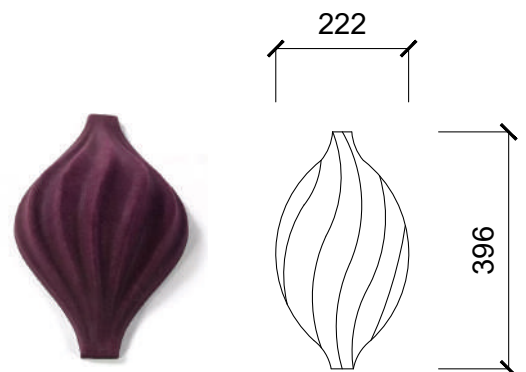
D-045B

Thickness: 22mm



U-023B

Thickness: 100mm

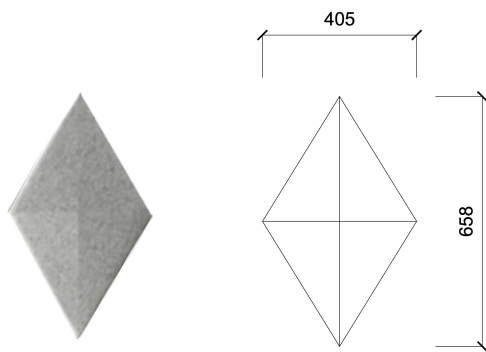


3D TILES DESIGN OPTIONS

“U” Series

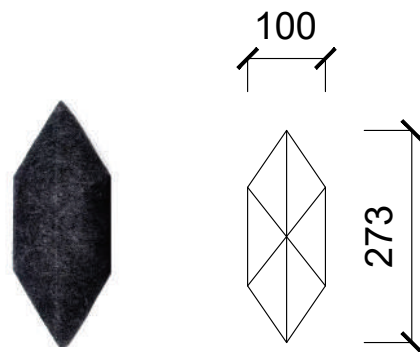
U-032B

Thickness: 95mm



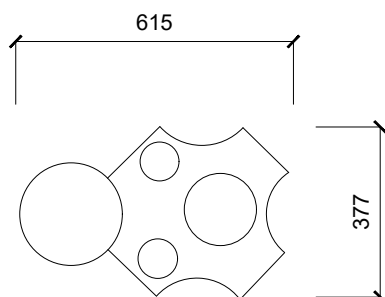
U-011U

Thickness: 35mm



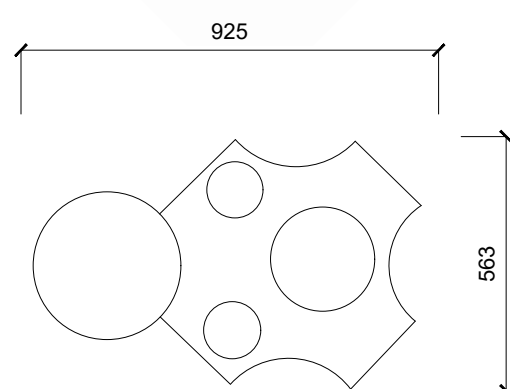
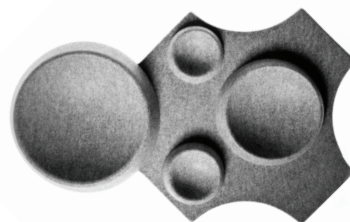
U-044B

Thickness: 40mm



U-045B

Thickness: 95mm

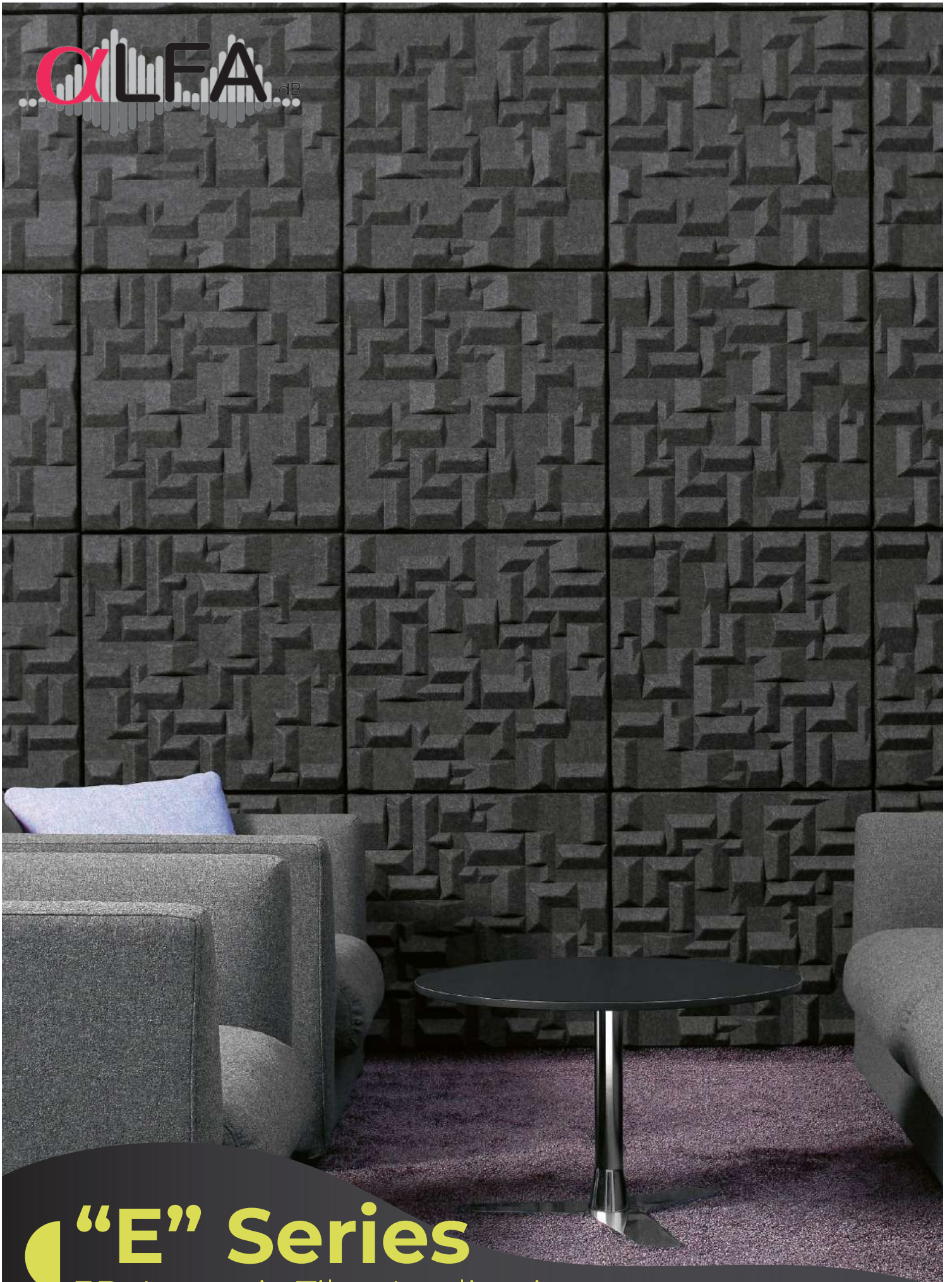


Colour Collection



Actual colour may vary, please request for updated colour samples of **estic** panels. Contact our design team for custom applications or visit our website at www.alfadb.net.





“E” Series
3D Acoustic Tiles Application

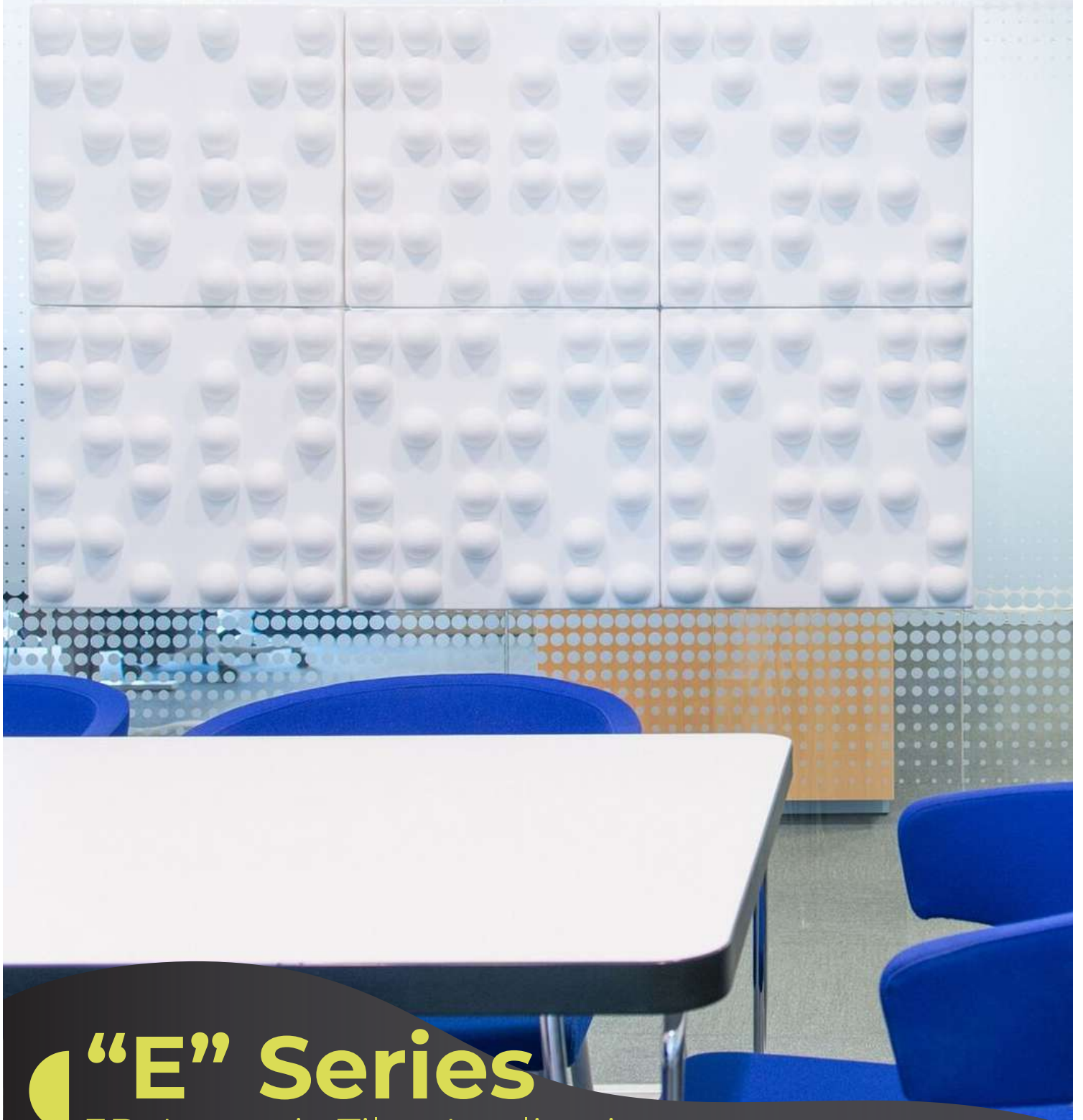


"E" Series

3D Acoustic Tiles Application



ALFA dB



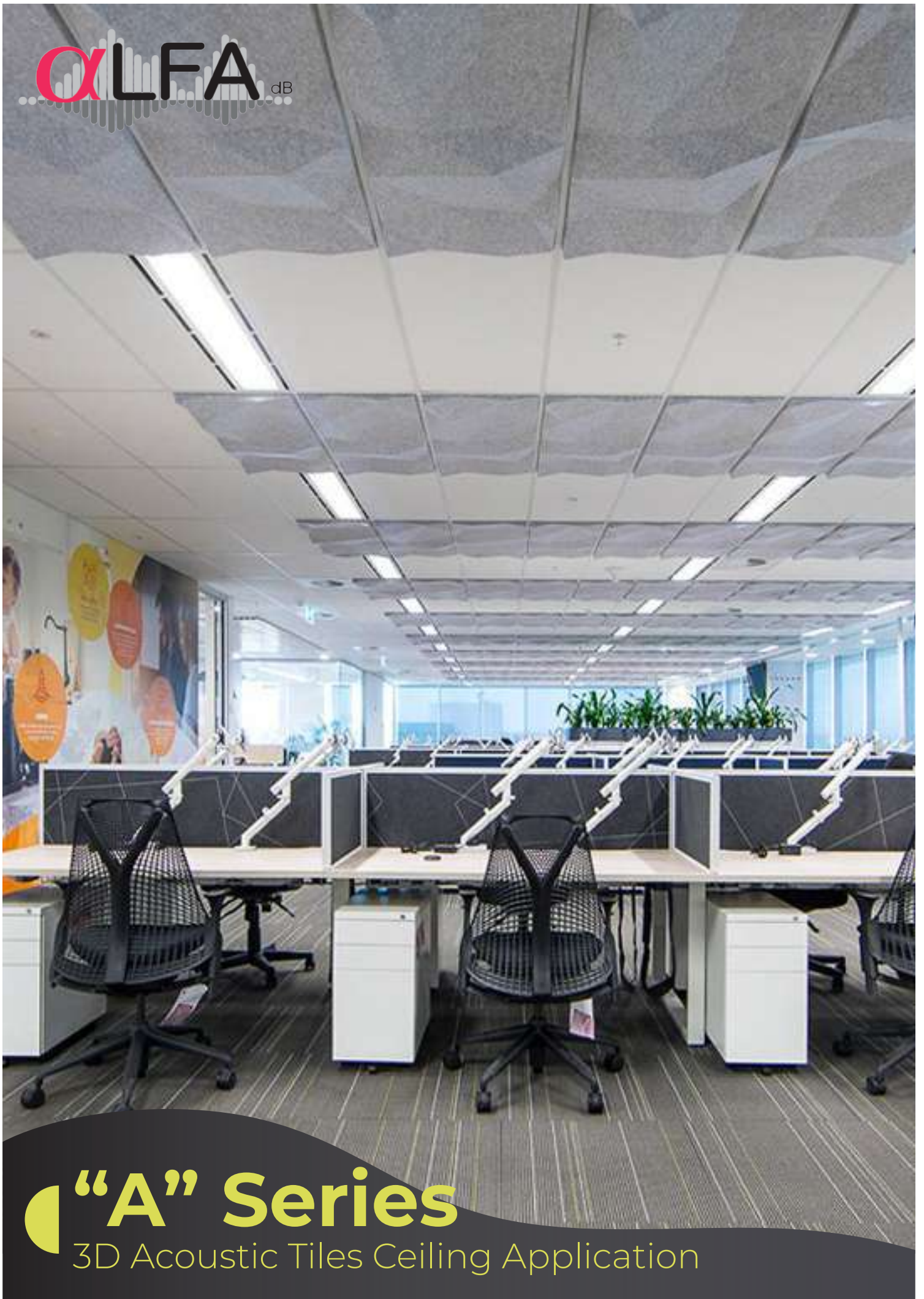
“E” Series

3D Acoustic Tiles Application



“B” and “E” Series

3D Acoustic Tiles Wall Application



“A” Series

3D Acoustic Tiles Ceiling Application

Get in touch with us



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ALFA dB



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ALFA dB

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