

MBS

Architectural

Autex Cube
TECHNICAL DATA SHEET

Your Ceiling Specialist

Every material. One source.

PARTNERING WITH THE WORLD'S LEADING CEILING *MANUFACTURERS*

Great design is in the detail, and the details are our speciality. We offer the broadest range of premium products from a single source. Our proprietary systems provide the platform for your unique design, giving you complete freedom and customisation to create truly stunning projects.

MBS Architectural can supply any of the products featured in this brochure, and be your one point of contact throughout the project lifecycle - from design conception to installation on site.

Reach out to get your hands on product samples, or discuss your project in more detail - **03 9580 7800 / hello@mbsarchitectural.com.au**



Product overview

Cube™ is a versatile acoustic panel designed for a variety of interior applications. Available in 12 mm and 24 mm thicknesses, Cube panels are lightweight and semi-rigid—made from 100% polyester fibre. Cube panels are customisable with Print, Mould & Press, Precision Cut, Groove, and Peel 'n' Stick, and require no edging or capping.

Sustainable material

- Carbon neutral product
- Zero carbon manufacturing
- Recycled content - >60% recycled material
- Low VOC and CDPH compliant - <0.092 mg/m³ (7 days)
- Zero waste manufacturing initiative
- Sustainable supply chain and anti-modern slavery

Environmental certifications

- EPD – compliant with ISO 14025 and ISO 15804
- Declare – Red List free (third party verified)
- ISO 14001 Certified Environmental Management
- Health Product Declaration
- CDPH Standard



Certifying your green building

Autex Acoustics products meet criteria for WELL, LEED, Green Star, and BREEAM building rating systems, helping you achieve certification for your project. For support and guidance on available rating system points please visit www.autexglobal.com, or speak with your Autex Acoustics account manager.

Specification

(Wall) treatment shall be Cube™ from thermally bonded high density polyester containing not less than 60% recycled material as manufactured by Autex www.autexglobal.com

Panel 1220 x 2440 x ()mm (nom.) depth, colour (), sound absorption 12 mm: Class D, NRC 0.45 – with 24 mm air gap: Class C, NRC 0.70. 24 mm: Class D, NRC 0.70

– with 24 mm air gap: Class C, NRC 0.80.
Fire rating ASTM E-84-15a: Class A, FS:0 - SD:45, ISO 9705: Classification: Group 1-S, AS ISO 9705 – 2003 Classification: Group 1, 12 mm BS EN 13501-1:2018: B - s2, d0, 24 mm BS EN 13501-1:2018: B - s2, d2.

If Cube is to be specified for use other than as a wallcovering, please seek guidance from your account manager..

Product specifications

Product name	Cube™
Composition	100% polyester fibre
Panel dimensions	1220 mm x 2440 mm
Tolerance	(+ 5 mm) x (+ 10 mm)
Thickness	12 mm 24 mm
Tolerance	(+/- 6%) (+/- 6%)

Thermal performance
(Internally tested by Autex Lab)

Cube 12 mm	R0.41 (@15°C)
Cube 24 mm	R0.82 (@15°C)

Installation

Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website. If Cube is to be specified for use other than as a wallcovering, please seek guidance from your account manager.



Product specifications

Fire ratings

Cube has been evaluated using the following test methods.

ISO 9705: 1993

Classification: Group 1-S

Smoke production rate:

<5.0m²/s

As required by NZBC C/VM2

AS ISO 9705 - 2003

Classification: Group 1

(SMOGR_{Arc}): <100m²/s²

Assessed using methodology AS ISO 9705 - 2003 in accordance with AS 5637:2015, as required by BCA Specification C1.10-4

FI 4974

FAR 4055

BS EN 13501-1:2018

Wall applications

Classification: B-s₂,d₀

(Cube™ 12 mm)

Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 15102:2007 + A1:2011. EUI-20-000268-A

Ceiling applications

Classification: B-s₂,d₀

(Cube™ 12 mm)

Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 13964:2014. EUI-20-000268-B

Wall applications

Classification: B-s₂,d₂

(Cube™ 24 mm)

Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 15102:2007 + A1:2011. EUI-21-000135-G-A

Ceiling applications

Classification: B-s₂,d₂

(Cube™ 24 mm)

Tested using BS EN ISO 11925-2:2020 and BS EN 13823:2020 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 13964:2014.

EUI-21-000135-G-B

ASTM E-84-15a

Class A, FS:0 - SD:45

(Cube™ 1/2")

RJ4479-2

Class A, FS:0 - SD:65

(Cube™ 1")

RJ4479-1

Water vapour sorption

ASTM C1104 / C1104M-13a

Test conditions: 49°C, 95%RH

Water vapour absorbed and adsorbed after 4 days: 0.4%

by weight

Impact resistance

ISO 7892:1988

Hard body impact

There is no surface damage or penetration to Cube when subjected to hard body impacts.

When adhered to 10 mm plasterboard, the system can resist a 9 joule impact. This is equivalent to the impact of a 0.5 kg object dropped from a 2 m height. A small indentation might be observed when subjected to an impact equivalent to the impact of a 0.5 kg object dropped from a 0.5 m height.

Soft body impact

There is no surface damage or penetration to Cube when subjected to soft body impacts. When adhered to 10 mm plasterboard, the system can resist a 70 joule impact.

This is equivalent to the impact of a 50 kg object dropped from a 150 mm height.

Microbial resistance

ASTM G21-15

Growth rating: 0 (No growth)

Cube does not promote the growth of moulds and mildew.

Colour fastness to light

Cube is suitable for indoor use only. Light fastness is dependent on use and exposure. Cube has been evaluated to the following standard:

ISO 105-B02:2014

Rating: 6 (Highest = 7)

Colour fastness to rubbing

ISO 105-X12:2016

Dry rating: 4-5 (Highest = 5)

Wet rating: 4-5 (Highest = 5)

Pattern repeat

Non-woven. No pattern repeat but 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.

Fabric care

Blot spills from fabric quickly. Wipe with a damp cloth. Avoid rubbing and excessive amounts of water as this will affect the finish. Use carpet or upholstery shampoo as directed.

Blot with a clean dry cloth after each application of solution. Custom printed Cube requires the services of a specialist cleaning company. Refer to the Cube Care and Maintenance Guide for more information.

Service

For further information about Cube or any other Autex Acoustics product, please contact your account manager or visit our website.

Acoustic performance

Cube is specifically designed to reduce and control reverberated and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
● 12 mm Cube	0.05	0.10	0.30	0.65	0.90	0.95	0.45
● 12 mm Cube (with 25 mm air gap)	0.05	0.30	0.60	0.95	0.95	0.85	0.70
● 24 mm Cube	0.05	0.20	0.60	0.90	1.00	1.00	0.70
● 24 mm Cube (with 25 mm air gap)	0.15	0.40	0.85	0.95	0.95	0.95	0.80

Graph presents third octave sound absorption coefficients (according to ISO 354 measurement of sound absorption in a reverberation room). The NRC rating is determined as the arithmetic average of the absorption coefficients measured by one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

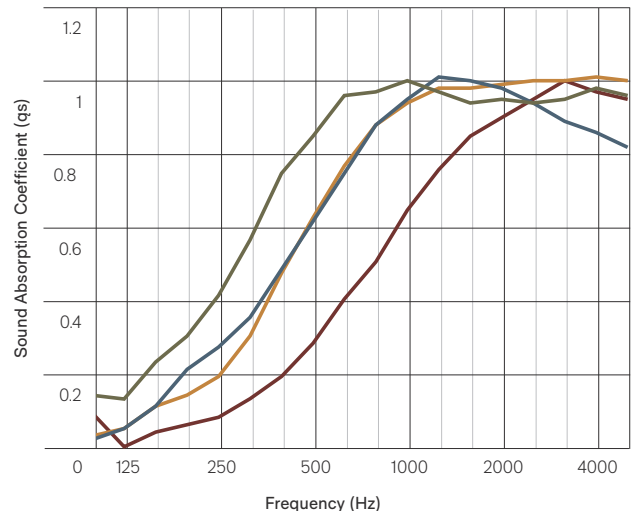
Absorption Coefficient According to ISO 354 University of Auckland Testing Service

Cube (12 mm) - Test No. T0712-3

Cube (12 mm with 25 mm air gap) - Test No. T0712-6

Cube (24 mm) - Test No. T1961-1

Cube (24 mm with 25 mm air gap) - Test No. T1326-2





Light reflectance values by colour

Cube is suitable for indoor use only. LRVs were measured in accordance with BS 8493:2008+A1:2010

Pavilion	80	Galaxy	15
Opera	49	Lotus	14
Savoie	46	Ironbank	13
Rosada	45	Cavalier	12
Senado	44	Muralla	9
Acros	40	Gherkin	8
Falling Water	34	Empire	5
Parthenon	33	Sargazo	4
Beehive	33	Pinnacle	3
Bosco	29	Tree House	3
Flatiron	24	Petronas	2
Zenith	23		

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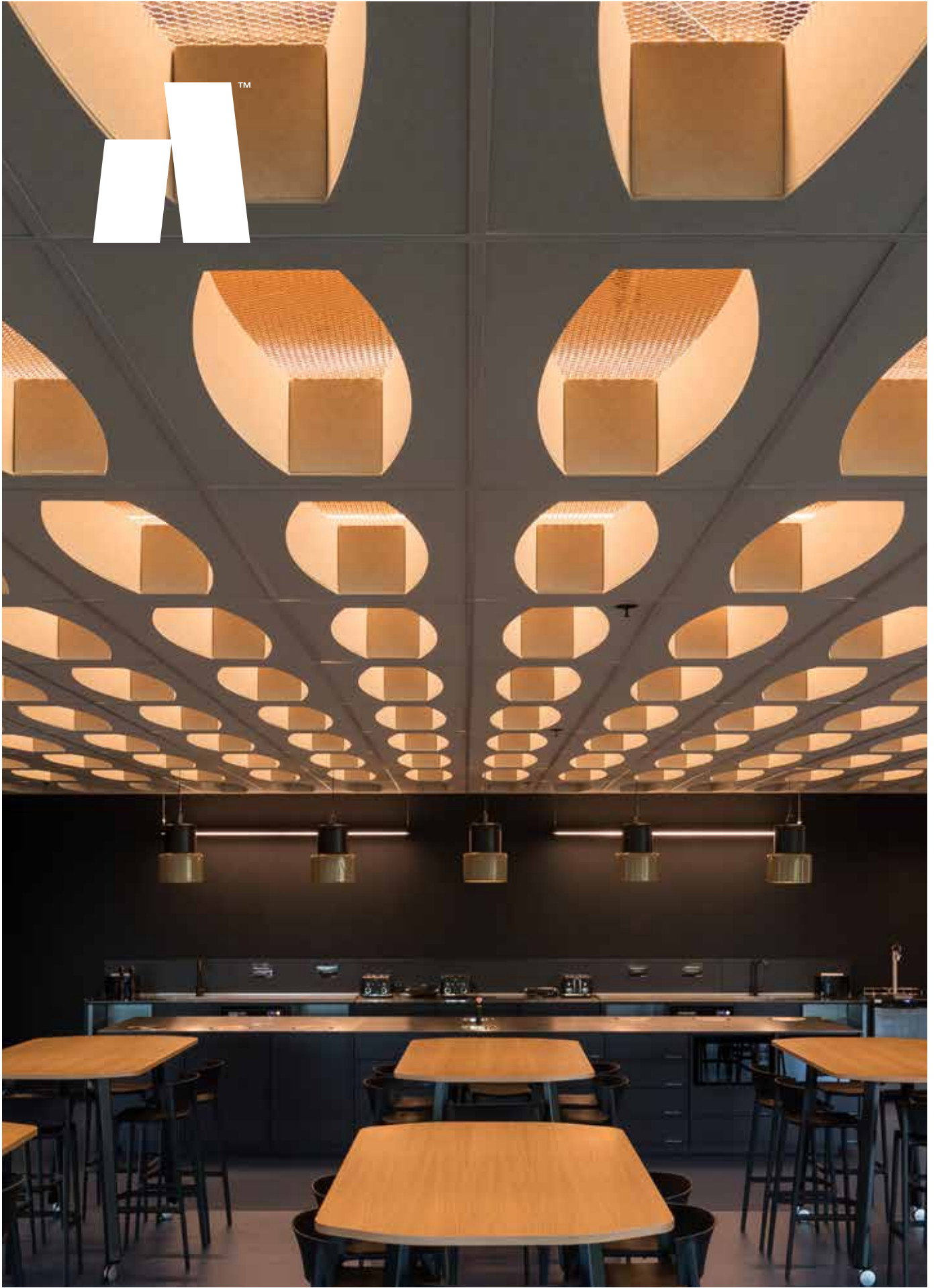
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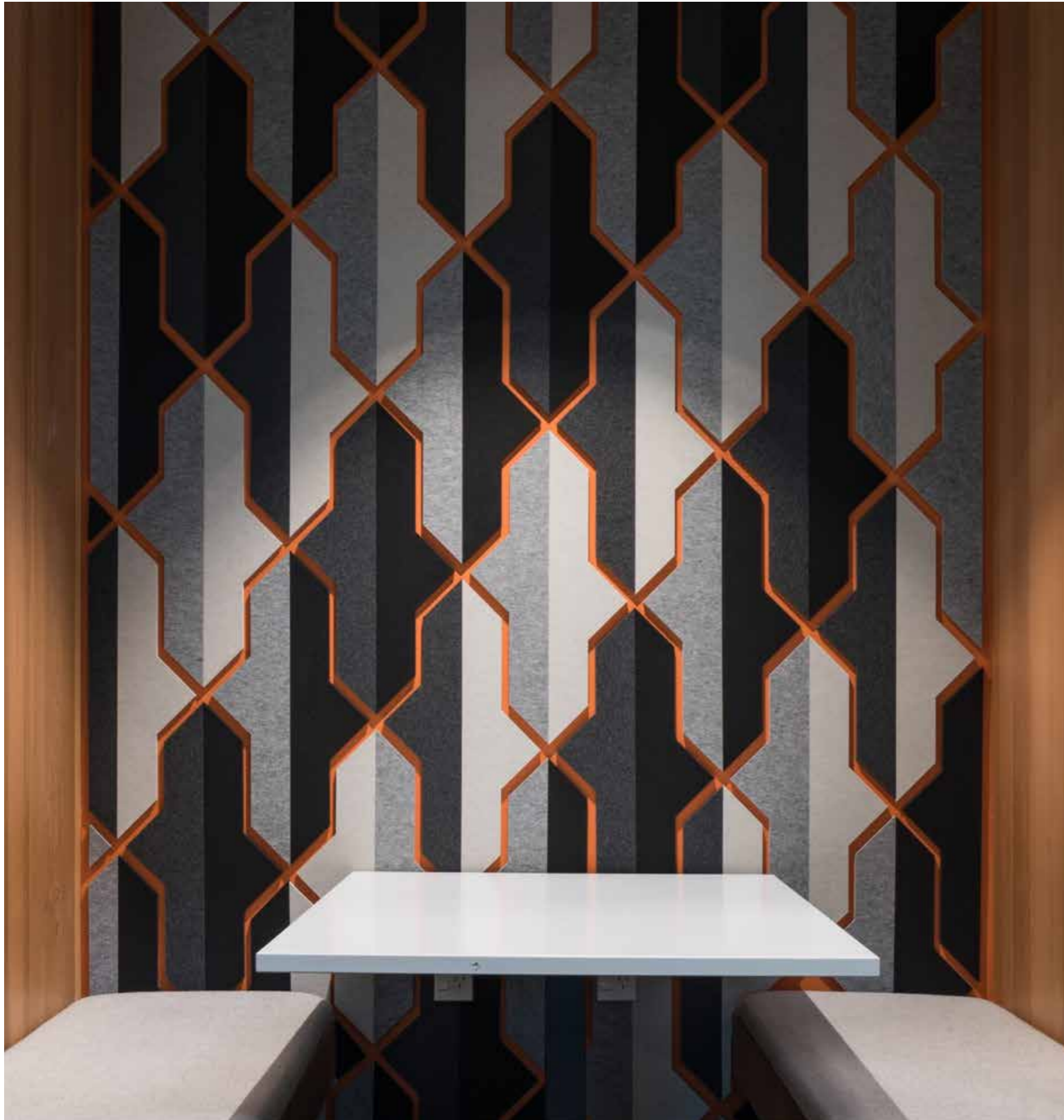
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Cube™

● Custom Cube™
in Savoye

● Trade Me,
New Zealand



Create anything

Cube™ acoustic panels reject the restraints of traditional acoustic panels, offering versatility and creative freedom in place of dull conventionality. A blank canvas for customisation, Cube panels can be cut, moulded, printed, pressed, and grooved to create high-performance acoustic features for any interior space.

Made from 100% polyester fibre, Cube realises innovative design concepts without pomp or circumstance.

Cube panels are available in 12 mm and 24 mm thicknesses for application flexibility, and don't require edging or capping.

To find out more about Cube visit www.autexglobal.com

● Cube in Flatiron, Opera, Petronas, Empire and Zenith

● Maori Television, New Zealand



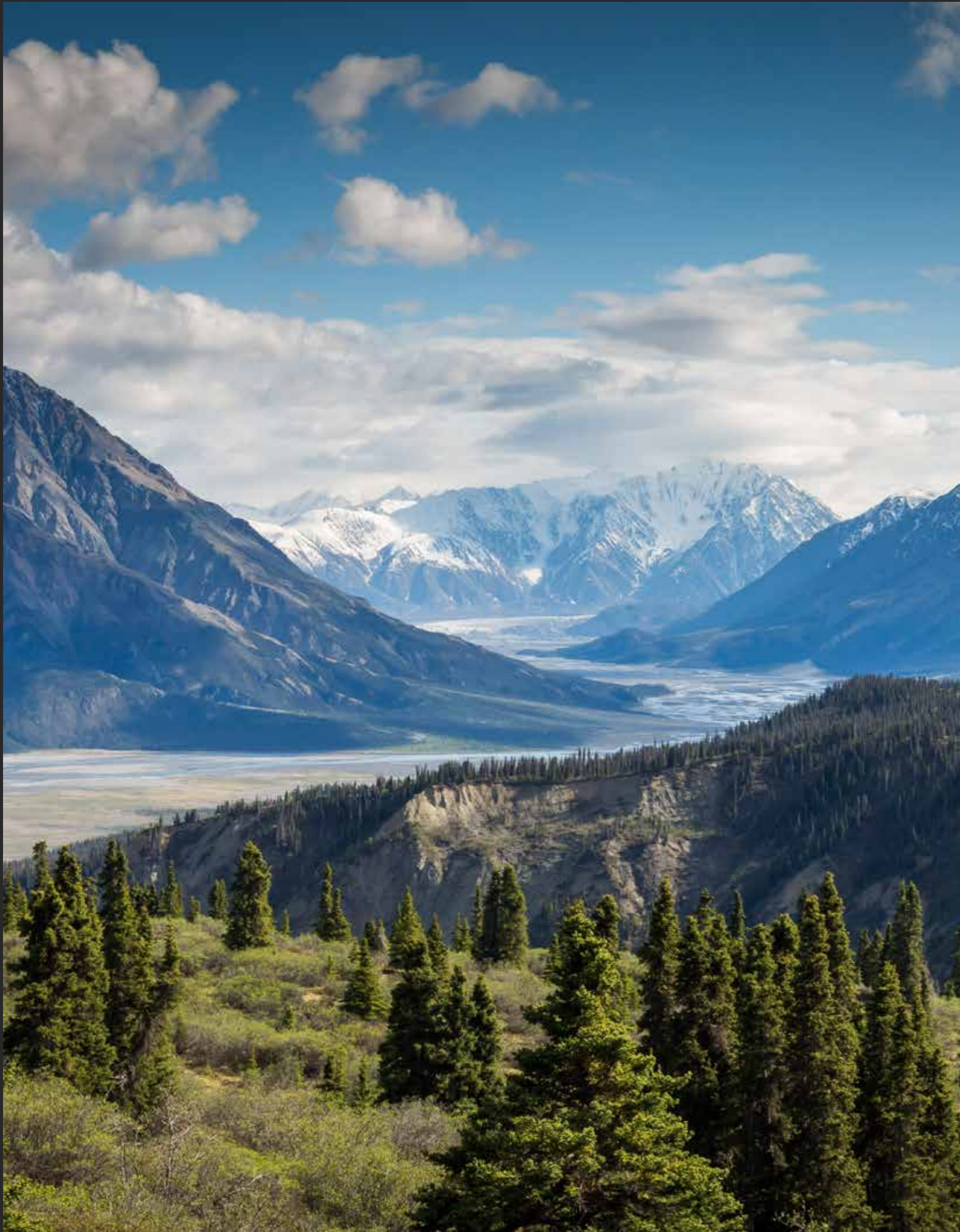


Features and benefits

- Delivers excellent acoustic performance
- Solid colour and smooth finish, with no edging or capping required
- Highly durable, providing long-term stability and performance
- Easily customisable

Applications

- Decorative and functional acoustic treatment for interior spaces



The Autex Acoustics® sustainability pillars

Our sustainability strategy provides the foundation and direction for our sustainability mission and goals. Our sustainability strategy is split into five pillars.



Climate change - We aim to maintain our position as a net-zero carbon organisation and offer carbon neutral products. Autex Acoustics began carbon accounting in 2017 and we continue to measure and monitor our GHG emissions which help inform carbon reduction initiatives. Remaining carbon emissions are mitigated using certified carbon credits.



Purpose and profit - Our goal is to positively impact our environment, our people, and the next generation. Autex Acoustics has committed a fund to support restorative social and environmental programmes.



Closing the loop - We aim to increase the uptake of product stewardship in the construction industry and expand our product takeback schemes to help build a more circular economy. We avoid waste through reducing material inputs to our products and designing for reuse/disassembly. We reuse waste from our manufacturing operations to make more product. We incorporate recycled PET waste into new product and use recyclable cardboard as packaging.



Wellbeing - We aim to ensure all current and future Autex Acoustics products avoid harmful chemicals. Our products are simple and designed without any toxic ingredients to support human and environmental health. Autex Acoustics products have a profound impact on the acoustic environment of building interiors and wellbeing of occupants.



Supply chain - We aim to eliminate any unethical practices in our supply chain to encourage good working conditions throughout our supplier network. Autex Acoustics carefully selects the best suppliers to ensure we deliver quality products that have a responsible social and environmental track record. As an organisation that relies on a global supply chain, we recognise the pressing—and ongoing—need to eliminate unethical practices within our own supply chain, particularly with regards to modern slavery.

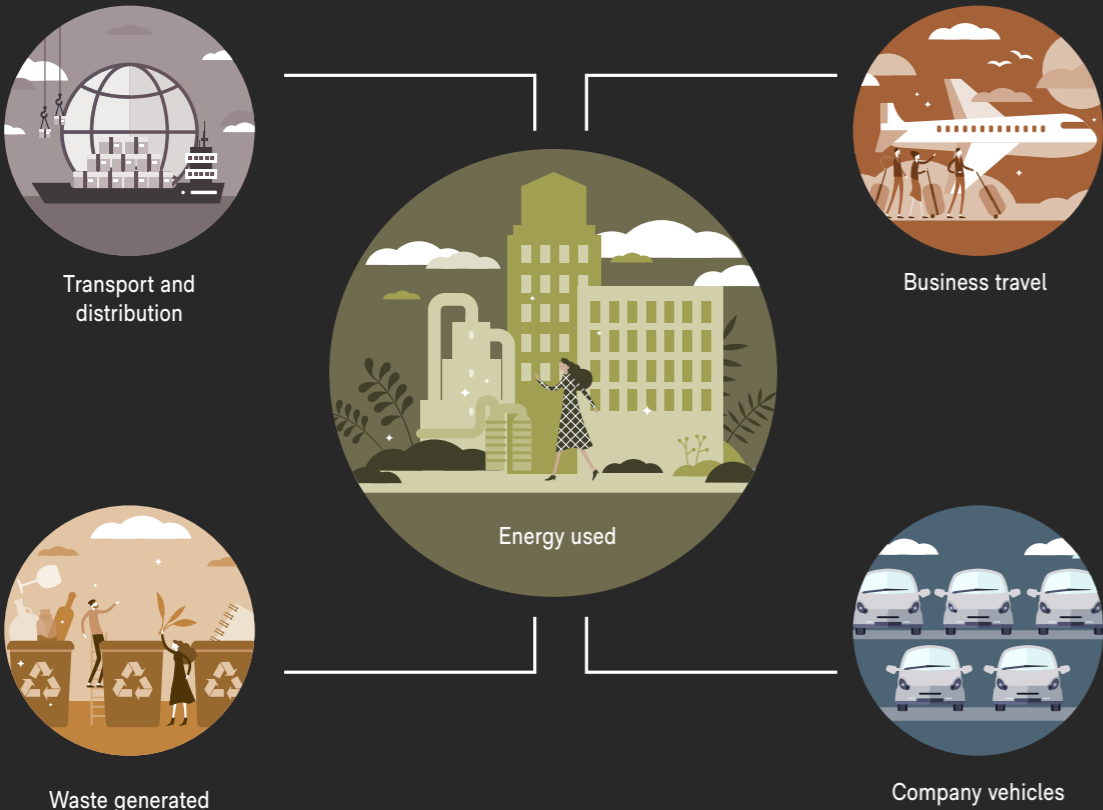
How we're fighting climate change

The climate crisis is the biggest issue of our generation. As a product designer and manufacturer, we have an opportunity to help improve the carbon impact of our industry.

Our operational carbon emissions

We are a carbon neutral business. We actively monitor the carbon emissions of our entire operation to better understand our carbon footprint and how we can further reduce emissions. We have an internal strategy to reduce our carbon emissions and have successfully delivered a number of carbon reduction initiatives within our operations. Any carbon emissions that are currently unavoidable are offset through certified carbon credits. We have a commitment to purchase only verified carbon credits that are retired on robust registers to ensure we are driving positive change.

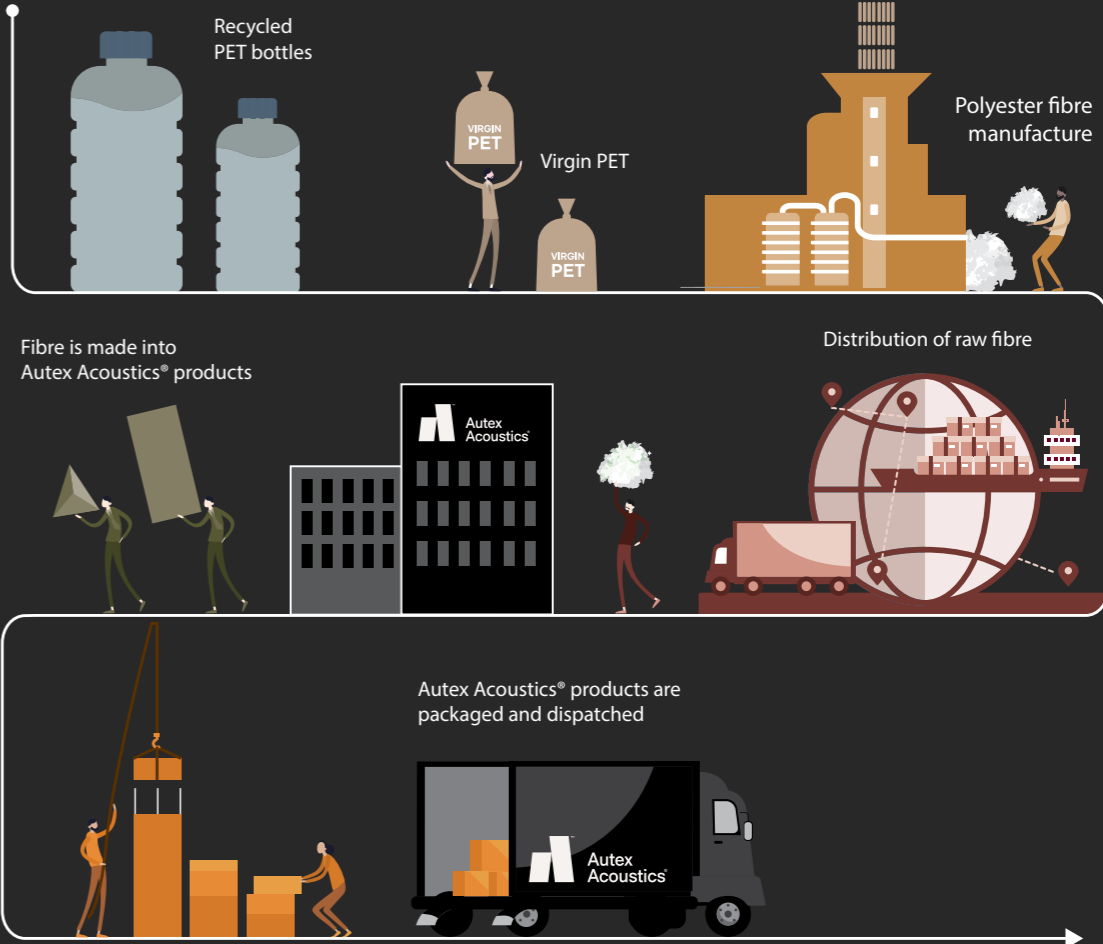
Key business activities contributing to our operational emissions



Embodied carbon of our products

Our products are carbon neutral, and we are the first business in our industry to include the cost of carbon in our products. We consider this an investment in present and future generations, and simply a cost of doing business. We calculate the embodied carbon of our products, from the raw material to the manufacturing gate, using industry recognised ISO standards. We have reduced the carbon footprint of our products through smart design and efficient manufacturing. While the embodied carbon of our products is low, they still do have a carbon impact. We mitigate this through our Carbon Neutral Product Initiative by offsetting the equivalent emissions using certified carbon credits. These carbon credits are generated from projects focused on renewable energy, fuel switching and reforestation around the world.

Key activities contributing to the embodied carbon of our products





● Royal Commission,
New Zealand

● Cube in Rosada, Flatiron,
Empire and Savoye

Customisation

As creators and innovators, we understand your pursuit of the bold and unusual, the rare and exceptional—the brave, colour-outside-the-lines ideas. Every space you design is unique, therefore, every element—from floor to ceiling—should be tailored to fit. Our customisation tools offer unique avenues for creative expression to help you achieve your vision—all that's left to explore are the boundaries of your imagination.

Our customisation capabilities include Print, Etch™, Groove, Precision Cut, Mould and Press, and Peel 'n' Stick.



● Custom Precision Cut Cube
in Flatiron, Savoye and Opera

● Tjapukai Aboriginal Cultural Centre,
Australia



Environmental certifications

Certifying your green building

Autex Acoustics products meet criteria for WELL, LEED, Green Star, and BREEAM building rating systems, helping you achieve certification for your project. For support and guidance on available rating system points please visit www.autexglobal.com, or speak with your Autex Acoustics account manager.



Environmental Product Declaration

An Environmental Product Declaration (EPD) is a document that communicates information about the life-cycle environmental impact of a product, including embodied carbon. Our EPDs are created and verified in accordance with ISO 14025 and ISO 15804, used for construction products and services.



GreenRate – Level A

GreenRate is a multi-attribute environmental certification that scores products on a range of environmental, health, and social measures. Autex Acoustics products are certified to achieve GreenRate Level A. Level A is the highest GreenRate level and demonstrates the highest level of product sustainability.



Declare – International Living Future Institute

The ingredients in our products have been reviewed against the Living Future Challenge Red List and achieve a Third-Party Verified 'Red List Free' status.



Products achieve the highest 'LBC Red List Free' status when:

- Ingredients are 100% disclosed and are not found in the Red List
- Products are shown to meet VOC emissions limits

We assure the accuracy of our certifications by having our Declare labels independently verified by a third party expert.



Health Product Declaration

A Health Product Declaration (HPD) is a document that reports the ingredients of a product and the health effects associated with these ingredients. A Health Product Declaration has been generated for each of our products.



CDPH Standard

CDPH Standard Method (CA Section 01350) is a widely used standard to evaluate building products for low volatile organic chemicals (VOC) and formaldehyde emissions. All Autex Acoustics products meet the limits set by CDPH and the LEED building rating scheme.



ISO Certifications

ISO 14001 – Environmental Management

Autex Acoustics manufactures under environmental management processes that are ISO certified. This certification gives assurance that we manage any environmental impacts within our operations.



ISO 9001 – Quality Management

Autex Acoustics has a strict quality management system that is ISO certified. Robust quality processes from raw material through to product release help ensure our products meet expectations.



ISO 45001 – Health and Safety Management

Autex Acoustics manufacturing operations have an ISO 45001 certified Health and Safety Management System to ensure the safety and wellbeing of our people.



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Every material. One source.

Reach out to our team for support, samples and advice.

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