AUTEX CEILINGS

MBS
Architectural

Autex Frontier

TECHNICAL DATA SHEET

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Architectural

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**

Autex Acoustics®

Frontier™ Acoustic Fins Data Sheet

Product overview

Frontier™ is a modular acoustic baffle system designed to communicate with interior spaces via an adjustable channel and clip system—giving you complete control over the height, spacing, and placement of each individual component. Lightweight yet solid in appearance, Frontier Acoustic Fins and Raft are made from 100% polyester fibre and cut to form elegant 2D and 3D shapes.
Frontier is designed to be 'tuned' to interior spaces, offering tailored acoustic absorption across a wide range of frequencies.

Panel fixing system patent

US Patent 10,113,312
AU Patent 2016250499
GB Patent 2,545,789
NZ Patent app 725770

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

Acoustic absorption system shall be Frontier™ Acoustic Fins (_) as compiled by Autex www.autexglobal.com

Acoustic absorber Frontier™ Acoustic Fins (2400/custom) mm length x (300 mm nominal/Axis 150 mm) depth x (12/24) mm gauge, spaced at (_) mm centres. Colour (_), sound absorption: 100/200 mm centres Class B, 300 mm centres Class C, Fire rating 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.

Supplied with Frontier Connector Clips, Frontier Channel, Frontier Fins. Fix with 6 g countersink fastener appropriate for the substrate. Install as per Frontier Install Instructions.

Product specifications

Product name	Frontier™ Acoustic Fins
Composition	Fin: 100% polyester fibre (PET); aluminium channel
Fin length	2400 mm
Tolerance	(+/- 0.5 mm)
Thickness	24 mm
Tolerance	(+/- 6%)

Installation
Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website.

Acoustic performance

Frontier Acoustic Fins is specifically designed to reduce and control reverberated noise and echo in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	NRC
Frontier Fins 24 mm (300 mm deep 100 mm centres)	0.35	0.70	0.95	1.25	1.35	1.30	1.05
Frontier Fins 24 mm (300 mm deep 200 mm centres)	0.25	0.55	0.70	1.10	1.30	1.30	0.90
Frontier Fins 24 mm (300 mm deep 300 mm centres)	0.20	0.45	0.60	1.00	1.25	1.20	0.85

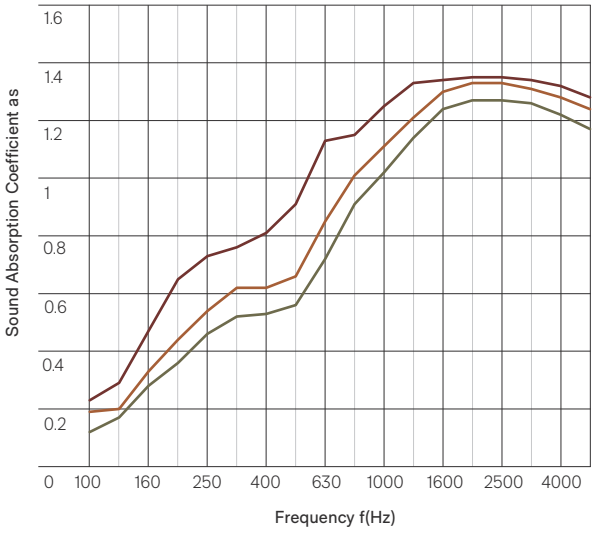
Table presents the practical sound absorption coefficients as according to ISO 11654. Graph presents third octave sound absorption coefficients (according to ISO 354 measurement of sound absorption in a reverberation room). The NRC rating is determined as the arithmetic average of the absorption coefficients measured by one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

Sound Absorption Coefficients according to ISO 354. University of Auckland Testing Service

Frontier Fins 24 mm
(300 mm deep 100mm centres) - test no: T1812-4

Frontier Fins 24mm
(300 mm deep @ 200 mm centres) - test no: T1812-5

Frontier Fins 24 mm
(300 mm deep @ 300 mm centres) - test no: T1812-6



Product specifications

Product name	Frontier™ Acoustic Fins
Composition	Fin: 100% polyester fibre (PET); aluminium channel
Dimensions	Fin length: 2400 mm
Tolerance	(+/- 0.5 mm)
Thickness	12 mm
Tolerance	(+/- 6%)

Installation
Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website.

Acoustic performance

Frontier Acoustic Fins is specifically designed to reduce and control reverberated noise and echo in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	NRC
●	**Frontier Axis 12 mm** (150 mm deep 300 mm centres)	0.20	0.50	0.75	0.65	0.90	1.05	0.70
●	**Frontier Fins 12 mm** (300 mm deep 100 mm centres)	0.30	0.65	0.80	1.20	1.45	1.60	1.00
●	**Frontier Fins 12 mm** (300 mm deep 200 mm centres)	0.30	0.60	0.70	1.00	1.30	1.50	0.90
●	**Frontier Fins 12 mm** (300 mm deep 300 mm centres)	0.25	0.50	0.60	0.80	1.10	1.25	0.75

Table presents the practical sound absorption coefficients as according to ISO 11654. 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.

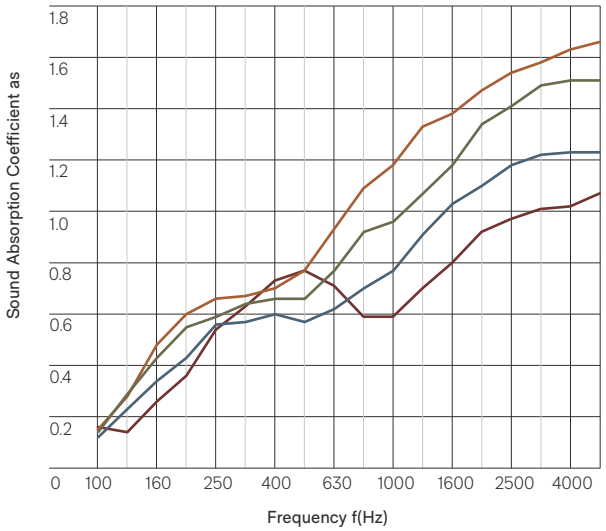
Sound Absorption Coefficients according to ISO 354. University of Auckland Testing Service

Frontier™ Axis 12 mm
(150 mm deep 300 mm centres) - test no: T1525-12

Frontier™ Fins 12 mm
(300 mm deep @ 100 mm centres) - test no: T1525-18

Frontier™ Fins 12 mm
(300 mm deep @ 200 mm centres) - test no: T1525-16

Frontier™ Fins 12 mm
(300 mm deep @ 300 mm centres) - test no: T1525-17



Product specifications

Fire rating

Frontier is made from Cube as the base material. 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
(SMOGRArc): <100m2/s2
Assessed using methodology AS ISO 9705:2003 in accordance with AS 5637.1:2015, 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 adsorped after 4 days: 0.4% by weight.

Microbial resistance
ASTM G21-15 Growth rating: 0 (No growth) Frontier does not promote the growth of mould and mildew.

Colour fastness to light
Frontier is suitable for indoor use only. Light fastness is depenent on use and exposure. Frontier 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 Frontier requires the services of a specialist cleaning company. Refer to the Frontier Care and Maintenance Guide for more information.

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

Light reflectance values by colour

Frontier Acoustic Fins are suitable for indoor use only. LRVs were measured in accordance with BS 8493:2008+A1:2010

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

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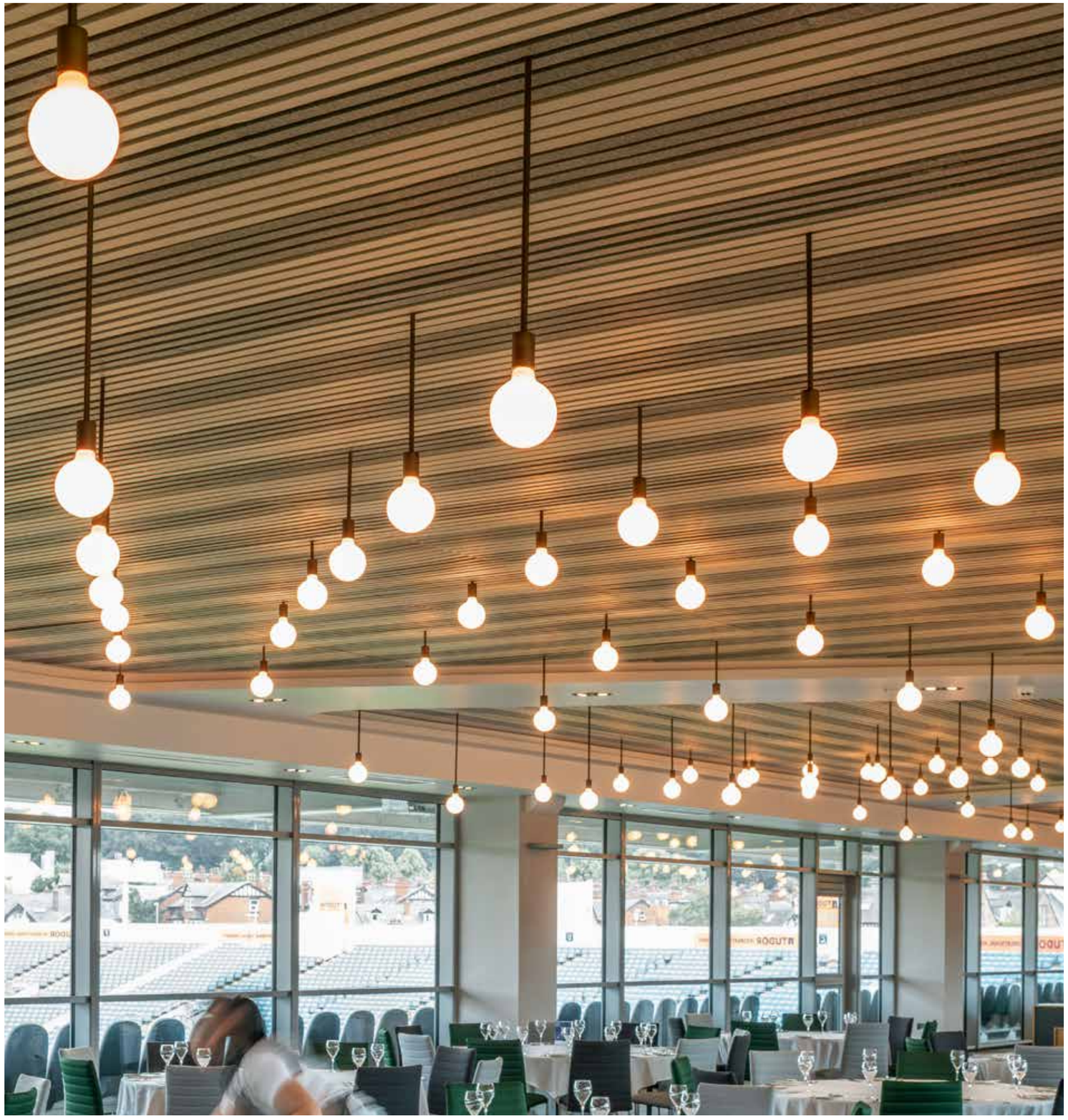
Frontier™

- Frontier™ Acoustic Raft Beam 100 in Petronas
- QB Studios, New Zealand



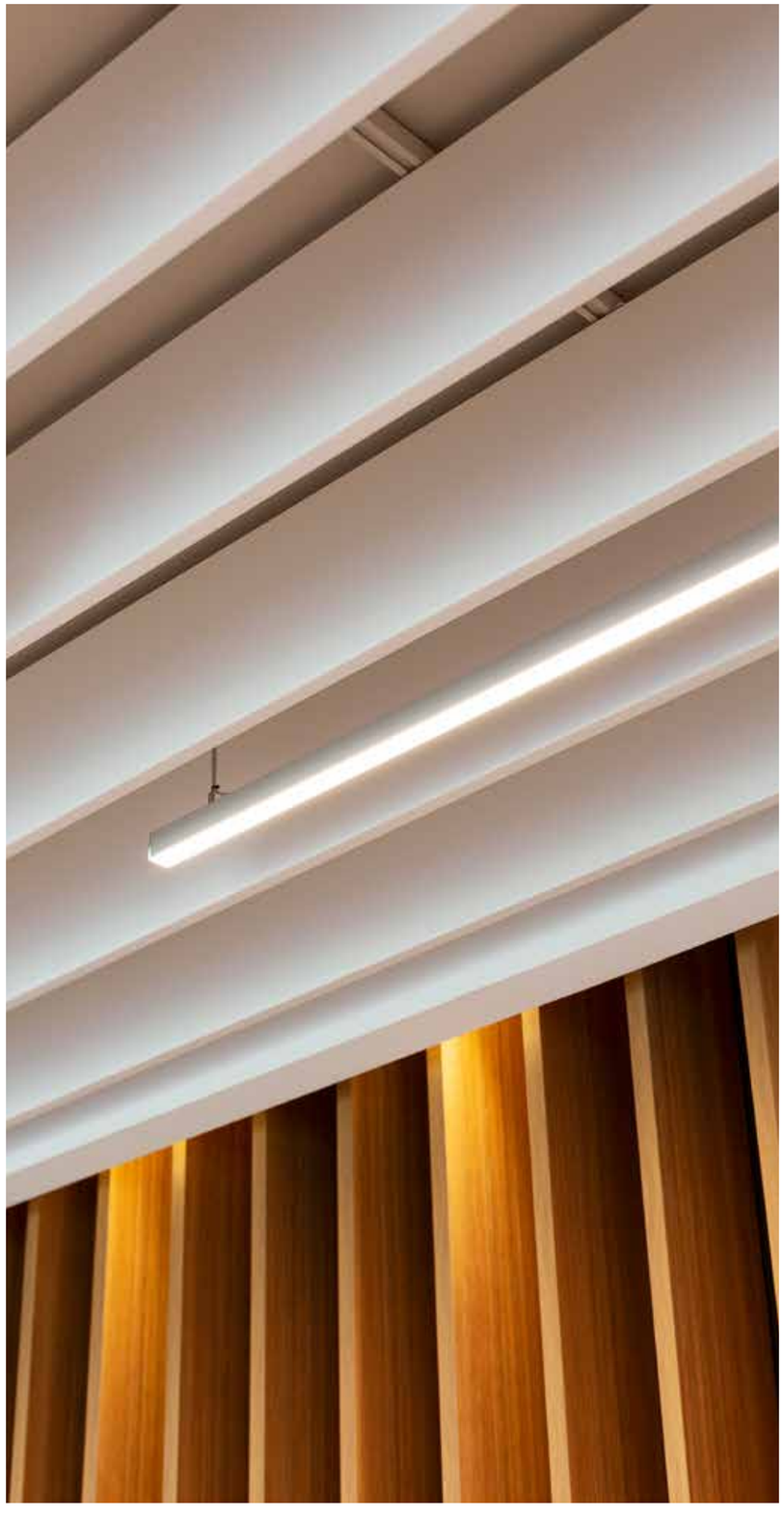
Pushing the boundaries of acoustic design

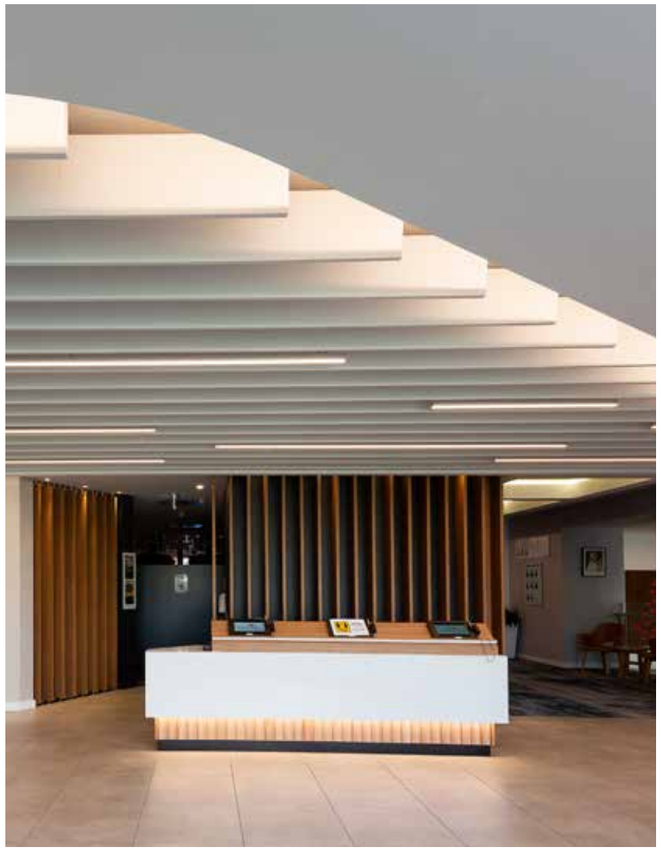
Comprised of linear, almost skeletal elements, the modular Frontier™ system congregates to form undulating sculptures and rhythmic slatted features. Available in two variations—Fins and Raft—the Frontier system is designed to communicate with interior spaces via an adjustable channel and clip system—giving you complete control over the height, spacing, and placement of each individual component. Lightweight yet solid in appearance, Frontier Acoustic Fins and Raft are made from 100% polyester fibre and cut to form elegant 2D and 3D shapes. Frontier is designed to be ‘tuned’ to interior spaces, offering tailored acoustic absorption across a wide range of frequencies.

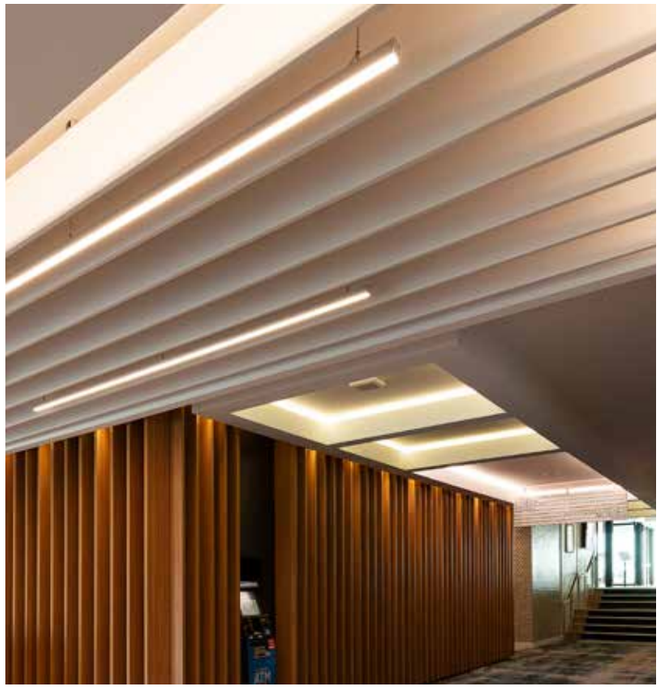
To find out more about Frontier visit **www.autexglobal.com**

- Frontier Acoustic Raft Beam 100 in Savoye and Flatiron
- Headingley Stadium, United Kingdom

Autex Acoustics®







Features and benefits

- Delivers excellent acoustic performance
- Available in 23 colours and nine styles
- Formed by just three elements, Frontier is installed quickly and efficiently, saving time on site
- Easy to uninstall and relocate
- Can be ‘tuned’ to any space
- Constructed without adhesives

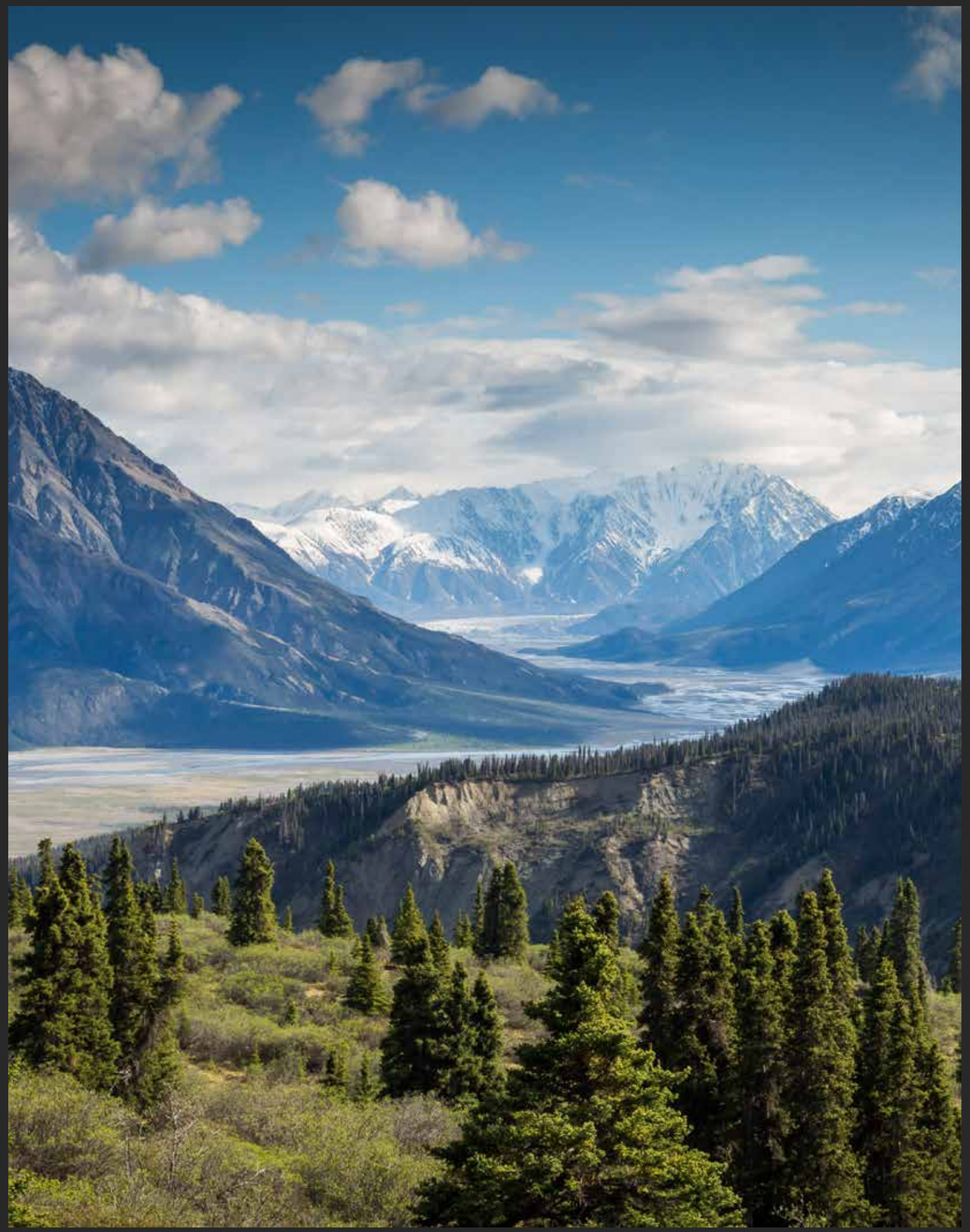
Applications

- Decorative, high-performance acoustic treatment for interior spaces
- Can be direct fixed or suspended from ceilings and walls

● Frontier Acoustic Raft Blade in Pavilion

● Cronulla RSL, Australia

Autex Acoustics®



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.

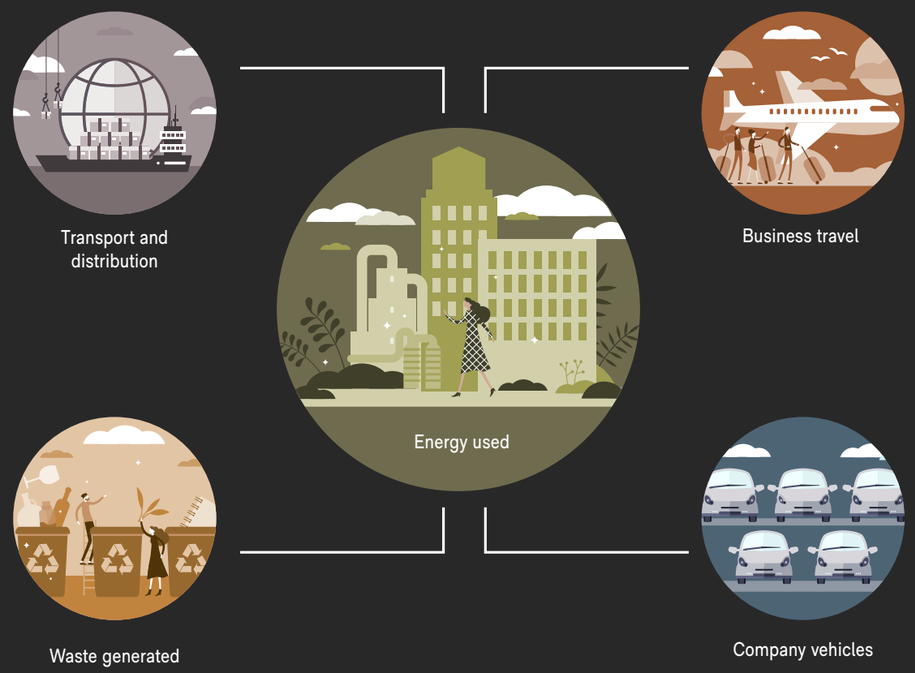
How we're fighting climate change

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.

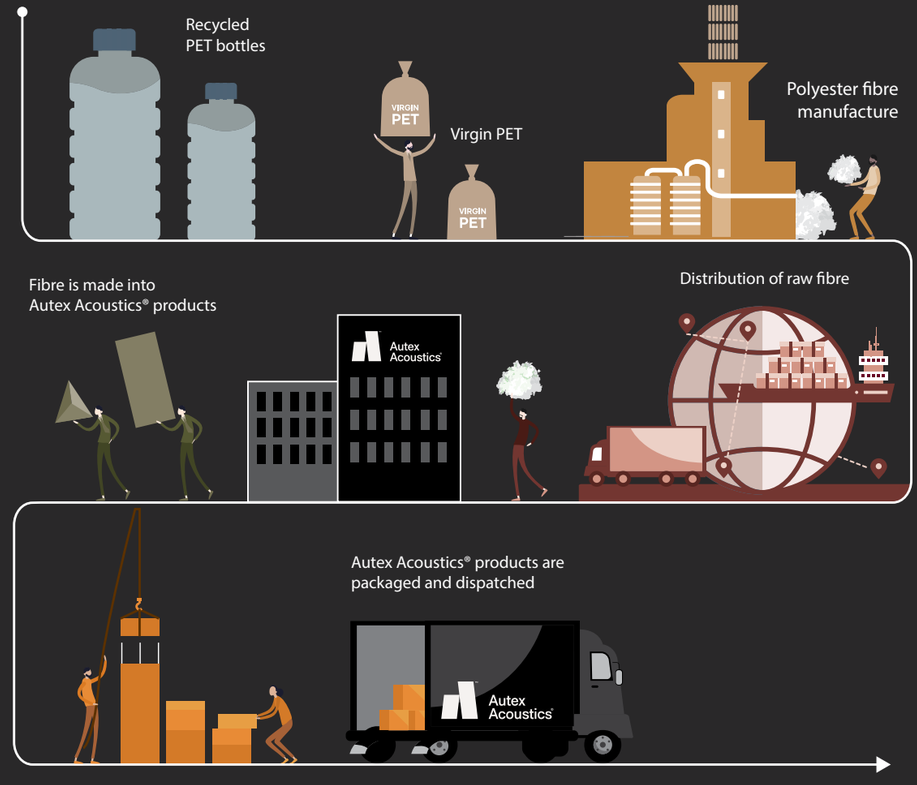
Key business activities contributing to our operational emissions



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



Frontier™ Acoustic Raft

Solid in appearance, yet hollow in the centre, Frontier Acoustic Raft is a three-dimensional variation of the Frontier system. With four geometric forms, Raft is scored, folded, and ‘zipped’ together using a locking channel to create a series of modular acoustic beams.

Raft’s geometric shapes are designed with both aesthetics and acoustic performance in mind. Made from compressed, needle-punched, polyester fibre, the compact outer shell absorbs higher frequencies, while the combination of the air within the hollow centre, and the three-dimensional form, effectively absorbs lower frequencies.

Modular in nature, the unique channel and clip system allows for complete control over the application of each individual component—giving you the freedom to mould the system to the contours and requirements of your space.

Patent
Panel Fixing System Patent
US Patent 10,113,312 | AU Patent 2016250499 |
GB Patent 2,545,789 | NZ Patent app 725770

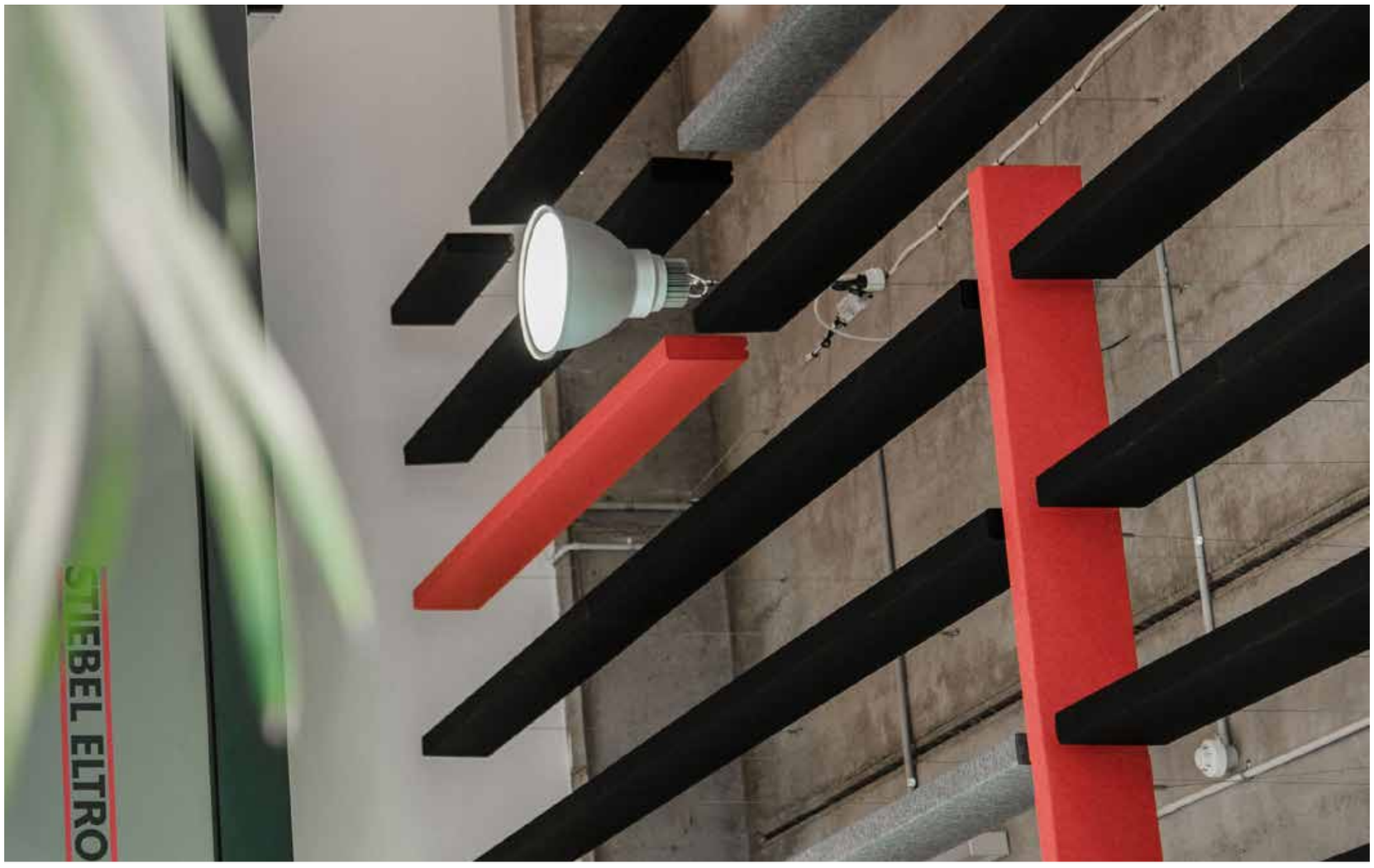
To find out more about Frontier
visit **www.autexglobal.com**

- Frontier Acoustic Raft Beam 100 in Petronas
- QB Studios, New Zealand

Autex Acoustics®

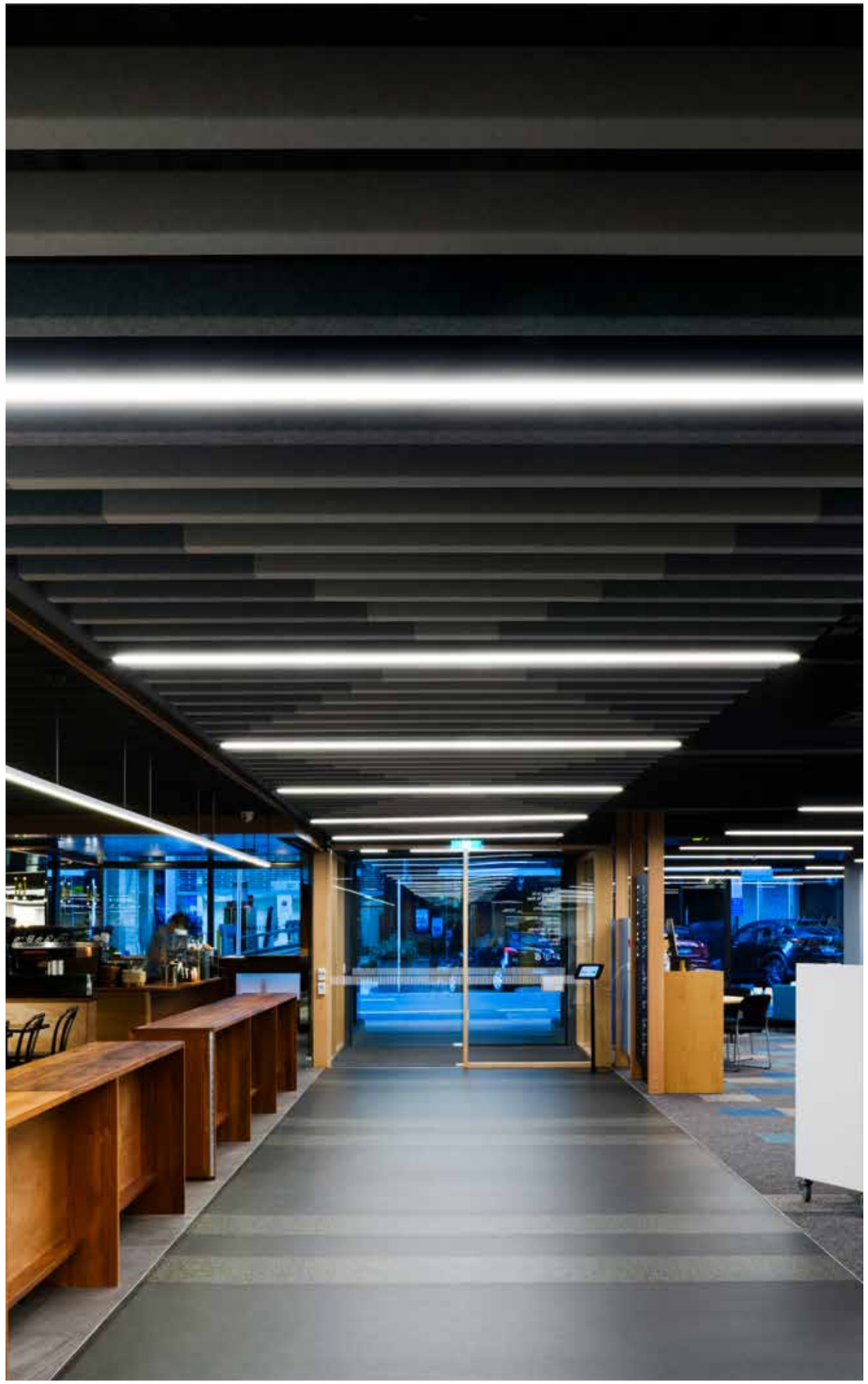
● Frontier Acoustic Raft Blade in Pavilion

● Cronulla RSL, Australia



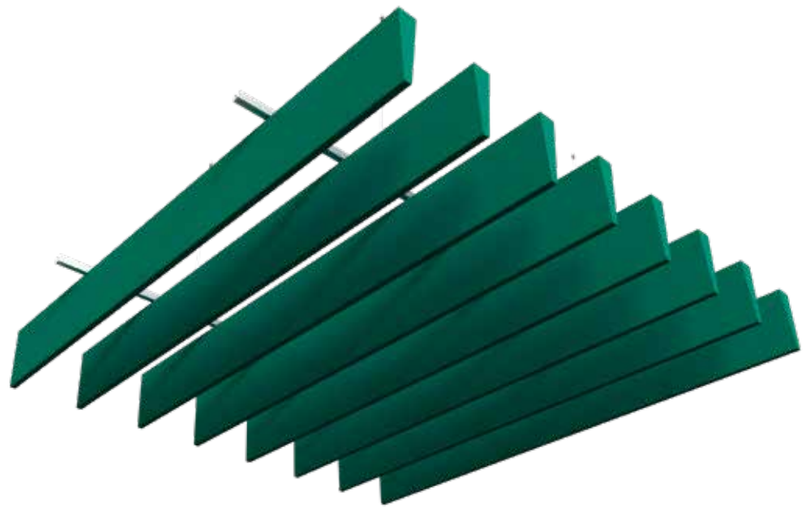
● Frontier Acoustic Raft Beam 250 in Petronas, Herald and Ironbank

● Stiebel Eltron Showroom, Australia

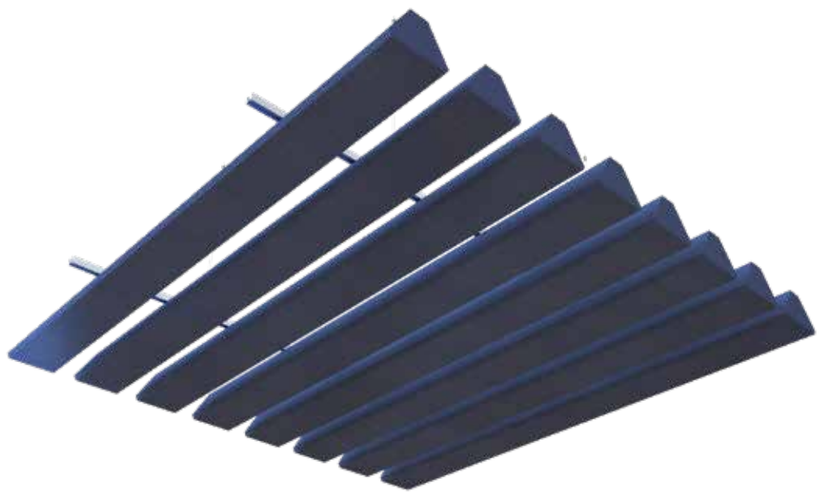


- Te Awe, New Zealand
- Frontier Acoustic Raft Beam 100 in Savoye and Flatiron

Design options



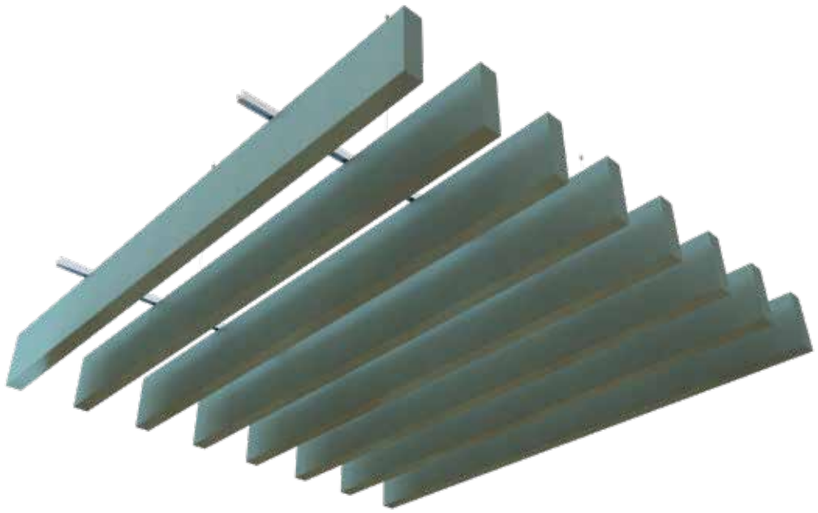
Blade



Trapezoid

- Homeland Cooking School, New Zealand
- Frontier Acoustic Raft Beam 100 in Savoye

Design options



Beam 250

Beam 100

Frontier™ Acoustic Fins

Elegant and refined, Frontier Acoustic Fins offer excellent acoustic absorption with sleek, gentle form—at once a design feature and a functional necessity. Lightweight and semi-rigid, Fins are available in five standard designs with 12 mm and 24 mm thicknesses.

Patent
Panel Fixing System Patent
US Patent 10,113,312 | AU Patent 2016250499 |
GB Patent 2,545,789 | NZ Patent app 725770

To find out more about Frontier
visit **www.autexglobal.com**

- Frontier Acoustic Fins in Empire
- The Waverley Brewhouse, Australia

Autex Acoustics®

● Nech Aged Care, Australia

● Custom Frontier Acoustic Fins in Falling Water

Design options

Tundra

Dune

Sierra

* Images shown are two packs.

Lumino Dentists,
New Zealand

Frontier Acoustic Fins Talus
in Flatiron

Design options

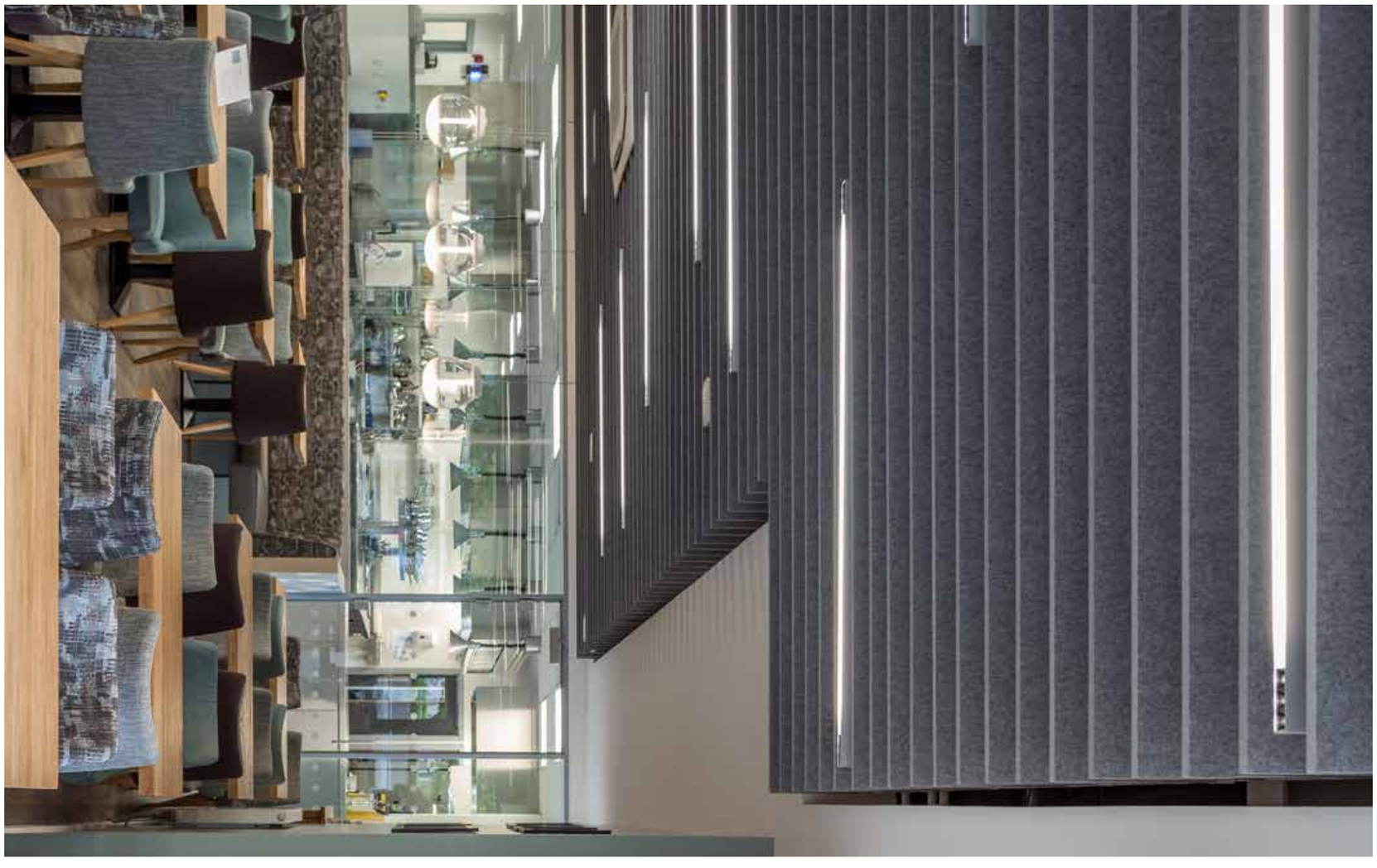
Talus

Axis (12 mm only)

*Images shown are two packs.

● Frontier Acoustic Fins Tundra in Empire

● Taunton College, United Kingdom



● Custom Frontier Acoustic Fins in Pavilion

● Te Hono - New Plymouth Airport, New Zealand

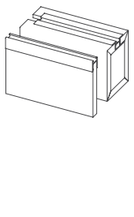
Frontier™

The system

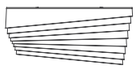
Increase productivity on-site, saving installation time and material costs.

Autex Frontier Extrusions
Multiuse aluminium channels, along with a system of components, act as a support for Acoustic Fins or Raft allowing for easy installation and adjustments on site.

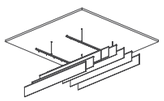
Autex Mounting Clips
The exclusive Frontier connector clip 'clicks' in place to enable Fins or Raft to be attached directly to the ceiling channel, leaving no exposed fasteners or adhesives.



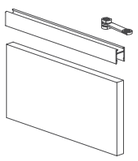
Choose Acoustic Fin or Raft styles
Enjoy the freedom to create new and interesting ceiling and wall features with Fins or Raft. Choose Fins for simple and stylish arrangements, or Raft to add dimensional shape and volume.



Arrangement versatility
Arrange Fins or Raft in countless configurations.
Install in standard or custom sequences, or bring your vision to life working side-by-side with Autex Acoustics in-house acoustic design experts and account managers.



Easy assembly
Frontier is assembled quickly and efficiently, saving time on site. A modular system, Frontier can move with your space—easy to uninstall and relocate as required.

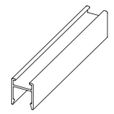


A semi-permanent system
Frontier uses no adhesives. Each component can be removed quickly at the end of life, minimising negative impacts on the environment at the time of disposal.

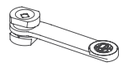
Frontier™

The system components

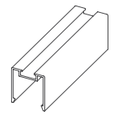
Pack components



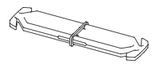
RAFNEX
Frontier 12 mm Extrusion



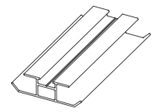
RAFTCC
Autex Mounting Clip



RAFNEX24
Frontier 24 mm Extrusion

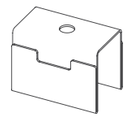


RAFCCT
Autex Frontier
Channel Connector

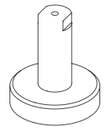


RAFNEXRT
Frontier Raft Extrusion

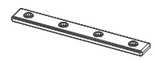
Accessories



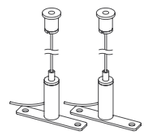
RAFWCP
Autex Removable W-CLip



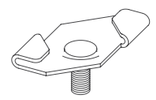
RAFM6MP
Velda Magnet Pot with
M6 Thread and Cable Adaptor



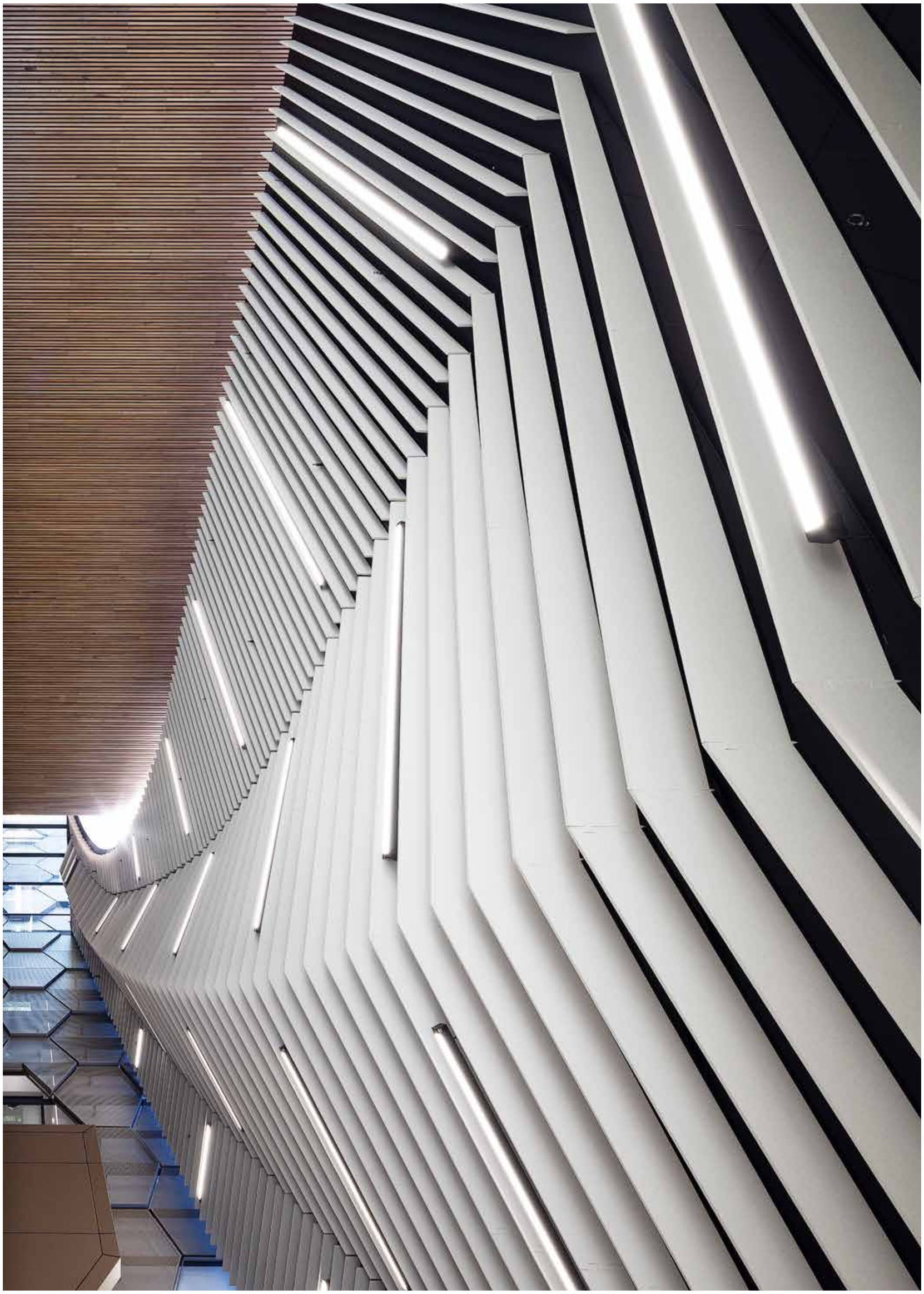
RAFHDCC
Autex Heavy Duty Frontier
Channel Connector with
4x M5 Grub Screws



RAHVAS
Autex Adjustable
Suspension Set - Channel



RAFM6GC
Velda Grid Connector
with M6 Thread



- Custom Frontier Acoustic Fins in Savoye
- Taronga Zoo, 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.

Heath 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.

Autex Acoustics®

Frontier™ Acoustic Raft Data Sheet

Product overview

Frontier™ is a modular acoustic baffle system designed to communicate with interior spaces via an adjustable channel and clip system—giving you complete control over the height, spacing, and placement of each individual component. Lightweight yet solid in appearance, Frontier Acoustic Fins and Raft are made from 100% polyester fibre and cut to form elegant 2D and 3D shapes.
Frontier is designed to be 'tuned' to interior spaces, offering tailored acoustic absorption across a wide range of frequencies.

Panel fixing system patent

US Patent 10,113,312
AU Patent 2016250499
GB Patent 2,545,789
NZ Patent app 725770

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

Acoustic panels shall be Frontier Acoustic Raft (_) as compiled by Autex www.autexglobal.com

Acoustic absorber Frontier Acoustic Raft
(Blade: 2400 x 247 x 70 mm),
(Beam 100: 2400 x 87 x 70 mm),
(Beam 250: 2400 x 227 x 70 mm),
(Trapezoid: 2400x 137 x 200 mm),
Colour (_),

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, BS EN 13501-1:2018: B - s2, d0.

Seismic bracing as per local building code requirements.

A variety of fixing or suspension options are available. Install as per Frontier Install Instructions.

Product specifications

Product name	Frontier™ Acoustic Raft
Composition	100% polyester fibre (PET); aluminium channel
Fin length	2400 mm
Tolerance	(+/- 0.5 mm)
Thickness	12 mm
Tolerance	(+/- 6%)

Installation
Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website.

Product specifications

Fire ratings
Frontier is a made from Cube as the base material. 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 (SMOGRArc): <100m2/s2
Assessed using methodology AS ISO 9705:2003 in accordance with AS 5637.1:2015, as required by BCA Specification C1.10-4
FI 4974
FAR 4055

BS EN 13501-1:2018
Wall applications
Classification: B-s2,d0 (Cube™ 1/2")
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™ 1/2")
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

ASTM E-84-15a
Class A, FS:0 - SD:45
RJ4479-2

Water vapour sorption
ASTM C1104 / C1104M-13a
Test conditions: 49°C, 95%RH
Water vapour absorbed and adsorped after 4 days: 0.4% by weight.

Microbial resistance
ASTM G21-15
Growth rating: 0 (No growth)
Frontier Acoustic Raft does not promote the growth of moulds and mildew.

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 Fontier requires the services of a specialist cleaning company. Refer to the Frontier Acoustic Raft Care and Maintenance Guide for more information.

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

Acoustic performance

Frontier Acoustic Raft is specifically designed to reduce and control reverberated noise and echo in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	NRC
●	**Frontier Raft 12 mm Trapezoid** (200 mm off ceiling @ 300 mm centres)	0.25	0.65	0.85	1.05	1.15	1.15	0.95
●	**Frontier Raft 12 mm Blade** (200 mm off ceiling @ 300 mm centres)	0.20	0.35	0.60	1.00	1.25	1.25	0.80
●	**Frontier Raft 12 mm Beam 100** (200 mm off ceiling @ 150 mm centres)	0.05	0.25	0.55	0.95	1.15	1.20	0.75
●	**Frontier Raft 12 mm Beam 250** (200 mm off ceiling @ 300 mm centres)	0.20	0.45	0.70	1.10	1.35	1.30	0.90

Table presents the practical sound absorption coefficients as according to ISO 11654. 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.

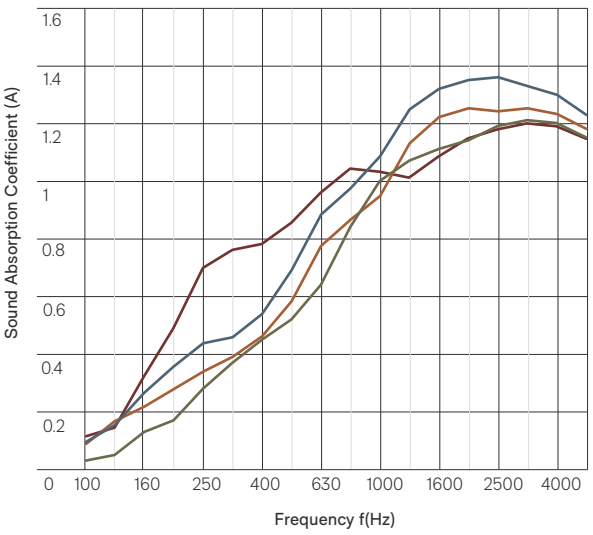
Sound Absorption Coefficients according to ISO 354. University of Auckland Testing Service

Frontier Raft 12 mm Trapezoid
(200 mm off ceiling @ 300 mm centres) - Test No: T1905-11

Frontier Raft 12 mm Blade
(200 mm off ceiling @ 300 mm centres) - Test No: T1905-10

Frontier Raft 12 mm Beam 100
(200 mm off ceiling @ 150 mm centres) - Test No: T1945-4

Frontier Raft 12 mm Beam 250
(200 mm off ceiling @ 300 mm centres) - Test No: T1945-5



Light reflectance values by colour

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

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

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  United States of America
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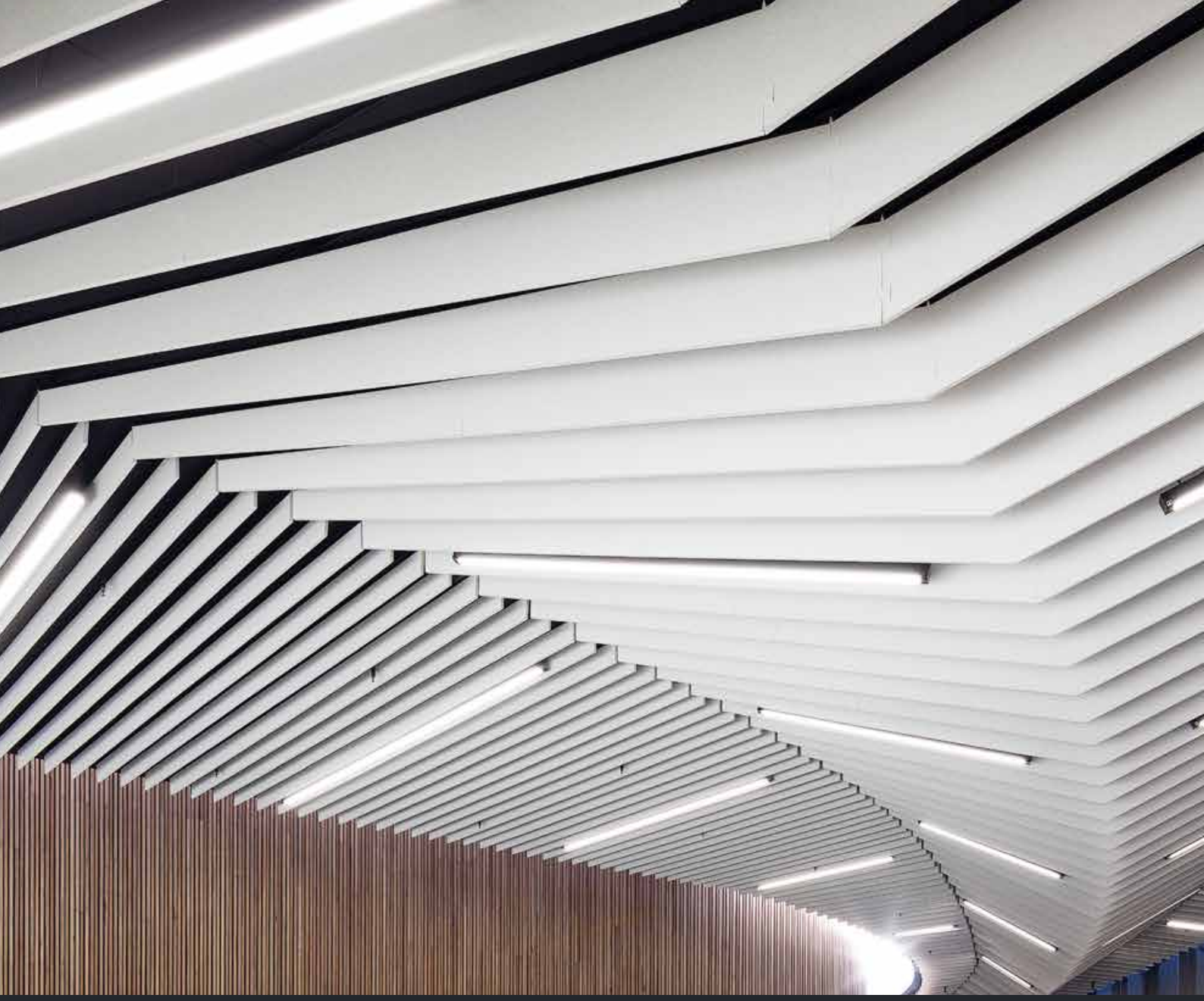

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