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/m^3 (7 days)
- Zero waste manufacturing initiative
- Sustainable supply chain and anti-modern slavery

Environmental certifications

- EPD – compliant with ISO 14025 and EN 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, d0.

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

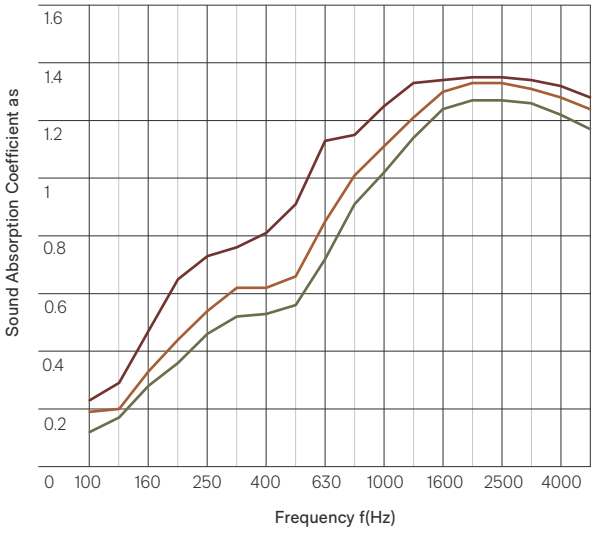
Table presents the practical sound absorption coefficients as according to ISO 11654. Graph presents third octave sound absorption coefficients (according to ISO 354 measurement of sound absorption in a reverberation room). The NRC rating is determined as the arithmetic average of the absorption coefficients 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.

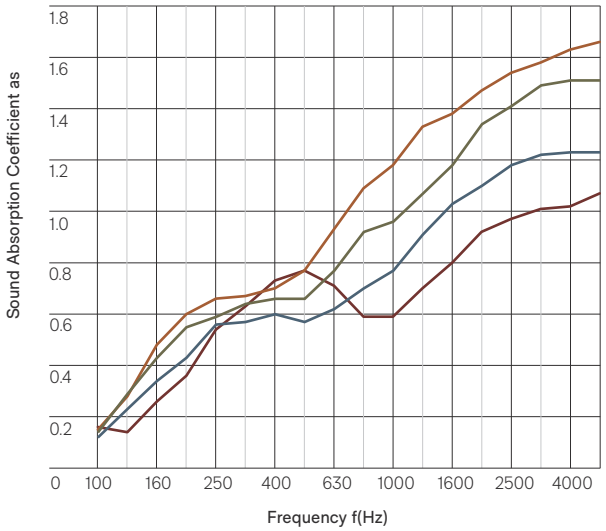
Sound Absorption Coefficients according to ISO 354. University of Auckland Testing Service

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 NCC Specification 7: Fire Hazard properties: S7C4
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

Wall applications
Classification: B-s2,d0
(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.
7191343095-MEC24/03-JV

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

Ceiling applications
Classification: B-s2,d0
(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.
7191343095-MEC24/03-JV

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

Acros	40
Beehive	33
Canyon	19
Caspian	6
Cavalier	12
Empire	5
Falling Water	34
Flatiron	24
Gherkin	8
Highland	19
Muralla	9
Opera	49
Parthenon	33
Pavilion	80
Petronas	2
Pinnacle	3
Sargazo	4
Savoye	46
Senado	44
Terrace	24
Tree House	3

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