Autex Acoustics®

Horizon™ Manufacturer's Guarantee

Horizon™ panels are manufactured by Autex Industries Ltd and Autex Australia Pty Ltd under ISO 9001 and ISO 14001 certified Environmental and Quality Management Systems. The product is guaranteed to be free from manufacturing defects and carries a Manufacturer's Guarantee for a period of no less than ten years to meet all of the performance properties stated within this guarantee.

Panel fixing system patent

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

Specification

Product name Horizon™

Description 100% polyester lightweight semi-rigid panel.

	Metric
Dimensions	Available in 6 geometric shapes. Please refer to Horizon Data Sheet for individual dimensions
Thickness	24mm
Tolerance	*(+/- 6%)*
Weight	3600gsm

Physical description/ properties

Boiling point:	N/A
Melting point:	250°C
Vapour pressure:	N/A
Specific gravity:	Polyester 1.38
Flash point:	N/A
Explosive limits:	N/A
Solubility in water:	Not soluble
Alkalinity:	pH 7.8
Relative vapour density:	N/A

Acoustic performance

Horizon Oval is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Oval (Fixed on clips)	0.3	1.0	2.5	3.3	3.3	3.1	2.5
Horizon Oval (24 mm suspended 200 mm)	0.7	2.1	2.9	3.2	3.8	3.9	3.0
Horizon Oval (24 mm suspended 400 mm)	1.5	2.0	2.6	3.7	4.2	4.3	3.2
Horizon Oval (24 mm suspended 800 mm)	1.0	1.8	2.8	4.1	4.8	4.8	3.4

Acoustic performance

Horizon Rectangle is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Rectangle (Fixed on clips)	0.3	1.0	2.5	3.3	3.3	3.1	2.5
Horizon Rectangle (24 mm suspended 200 mm)	0.7	2.1	2.9	3.2	3.8	3.9	3.0
Horizon Rectangle (24 mm suspended 400 mm)	1.5	2.0	2.6	3.7	4.2	4.3	3.2
Horizon Rectangle (24 mm suspended 800 mm)	1.0	1.8	2.8	4.1	4.8	4.8	3.4

Acoustic performance

Horizon Square is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Square (Fixed on clips)	0.2	0.5	1.3	1.7	1.7	1.6	1.3
Horizon Square (24 mm suspended 200 mm)	0.2	1.0	1.5	1.7	2.0	2.1	1.6
Horizon Square (24 mm suspended 400 mm)	0.5	1.0	1.3	1.8	2.2	2.3	1.6
Horizon Square (24 mm suspended 800 mm)	0.7	0.8	1.4	2.1	2.5	2.4	1.7

Acoustic performance

Horizon Right Anlge Triangle is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Right Angle Triangle (Fixed on clips)	0.1	0.2	0.6	1.0	1.0	0.9	0.7
Horizon Right Angle Triangle (24 mm suspended 200 mm)	0.1	0.5	0.7	0.8	1.0	1.1	0.8
Horizon Right Angle Triangle (24 mm suspended 400 mm)	0.1	0.5	0.6	0.9	1.1	1.2	0.8
Horizon Right Angle Triangle (24 mm suspended 800 mm)	0.2	0.3	0.7	1.0	1.2	1.2	0.8

Acoustic performance

Horizon Circle is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Circle (Fixed on clips)	0.1	0.4	1.0	1.3	1.4	1.3	1.0
Horizon Circle (24 mm suspended 200 mm)	0.2	0.8	1.2	1.3	1.6	1.6	1.2
Horizon Circle (24 mm suspended 400 mm)	0.4	0.8	1.1	1.5	1.8	1.8	1.3
Horizon Circle (24 mm suspended 800 mm)	0.4	0.6	1.1	1.6	1.9	1.9	1.3

Acoustic performance

Horizon Hexagon is specifically designed to reduce and control reverberation and echo noise in building interiors.

Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Horizon Hexagon (Fixed on clips)	0.1	0.4	0.8	1.0	1.1	1.0	0.8
Horizon Hexagon (24 mm suspended 200 mm)	0.1	0.5	0.7	0.9	1.1	1.2	0.8
Horizon Hexagon (2 4mm suspended 400 mm)	0.2	0.4	0.7	1.0	1.3	1.3	0.9
Horizon Hexagon (24 mm suspended 800 mm)	0.2	0.4	0.7	1.1	1.4	1.4	0.9

Service

For further information about Horizon, please contact your Autex account manager or visit our website.

Care and maintenance

Maintain in accordance with the Care and Maintenance Guide available for this product.

Product Specifications

Composition
100% polyester fibre from polyethylene terephthalate (PET). Horizon contains a minimum of 80% previously recycled polyester fibre.

Suitable Applications
Suspended or wall mounted acoustic panels.

Fire Ratings
Horizon 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™ 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™ 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:65 (Cube™ 24 mm)
RJ4479-1

VOC Emissions
Autex polyester has been tested for chemical emissions in accordance with ASTM D5116 and is considered a low VOC product. VOC concentration: 0.009 mg/m3 (7 days)

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)
Horizon does not promote the growth of moulds and mildew.

Colour Fastness To Light
Horizon is suitable for indoor use only. Light fastness is dependent on use and exposure. Horizon has been evaluated to the following standard:
ISO 105-B02:2014
Rating: 6 (Highest = 7)

Mechanical Testing
To support the load and seismic calculations of your project's design, we have undertaken extensive destructive testing of Autex ceiling system components. For detailed mechanical testing information please contact your Autex account manager.

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.

Finish
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. Horizon is made from 24 mm Cube as the base material. Custom printed Cube requires the services of a specialist cleaning company. Refer to the Horizon Care and Maintenance Guide for more information.

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