Autex Acoustics <sup>®</sup>	Horizon™	Data Sheet
Product overview	Horizon <sup>™</sup> is a range of floating ac cloud-like illusion when suspended fibre, Horizon panels are lightweig their lifetime. Horizon can be insta the need for clear space, as the ch wires require limited contact.	d. Made from 100% polyester ht yet strong—holding form over lled on ceilings and walls without
Panel fixing system patent	US Patent 10,113,312 AU Patent 2016250499 GB Patent 2,545,789 NZ Patent app 725770	
Specification	Acoustic panels shall be Horizon (_) as compiled by Autex www.autexglobal.com Acoustic absorber Horizon (Rectangle 2400 x 1200 mm), (Square 1200 x 1200 mm), (Circle 1200 mm Diam.), (Right Angled Triangles 1159 x 1159 mm), (Oval 2400 x 1200 mm), (Hexagons 1100 mm across the widest point) 24 mm thick. Colour (_),	Fire Rating ISO 9705: 1993: Group 1-S, AS ISO 9705 – 2003: Group 1, 1" BS EN 13501-1:2018: B - s2, d2, ASTM E-84-15a: Class A, FS:0 - SD:45. Seismic bracing as per local building code requirements. Supplied with Autex attachment, suspension, or direct fix sets; fix with countersunk fastener appropriate for the substrate. Install as per Horizon Install Instructions.



Colour options

тм



# **Product specifications**

Product name Composition Panel dimensions Tolerance Thickness Tolerance Weight Horizon<sup>™</sup> Oval 100% polyester fibre 1200 mm x 2400 mm (+/- 0.5 mm) (+/- 0.5 mm) 24 mm (+/- 6%) 3600 gsm

### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.

# Acoustic performance

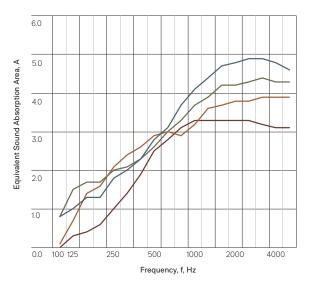
Horizon Oval is specifically designed to reduce and control reverberated noise and echo in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	Per unit
•	Horizon Oval (Fixed on clips)	0.3	1.0	2.4	3.3	3.3	3.2	2.5
•	Horizon Oval (24 mm suspended 200 mm	<sub>1)</sub> 0.8	2.1	2.9	3.3	3.8	3.9	3.0
•	Horizon Oval (24 mm suspended 400 mm	1.4	2.0	2.7	3.7	4.3	4.4	3.1
•	Horizon Oval (24 mm suspended 800 mm	<sub>n)</sub> 1.1	1.7	2.8	4.1	4.8	4.8	3.4

All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at 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

Horizon Oval direct fixed on clips - Test No: T1805-1 Horizon Oval suspended 200 mm - Test No: T1805-22 Horizon Oval suspended 400 mm - Test No: T1805-21 Horizon Oval suspended 800 mm - Test No: T1805-11



# **Product specifications**

Product nameHorizon™ RectangleComposition100% polyester fibrePanel dimensions1200 mm x 2400 mmTolerance(+/- 0.5 mm) (+/- 0.5 mm)Thickness24 mmTolerance(+/- 6%)Weight3600 gsm

### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.



## Acoustic performance

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

	Frequency (Hz)	125	250	500	1000	2000	4000	Per unit
•	Horizon Rectangle (Fixed on clips)	0.3	1.0	2.4	3.3	3.3	3.2	2.5
•	Horizon Rectangle (24 mm suspended 200 mm	n) 0.8	2.1	2.9	3.3	3.8	3.9	3.0
•	Horizon Rectangle (24 mm suspended 400 mm	<sub>n)</sub> 1.4	2.0	2.7	3.7	4.3	4.4	3.1
•	Horizon Rectangle (24 mm suspended 800 mm	<sub>n)</sub> 1.1	1.7	2.8	4.1	4.8	4.8	3.4

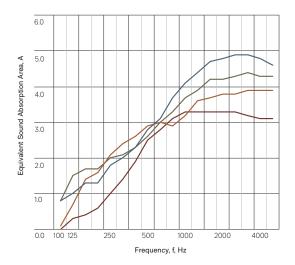
All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

# Product specifications

Product name Composition Panel dimensions Tolerance Thickness Tolerance Weight Horizon<sup>™</sup> Square 100% polyester fibre 1200 mm x 1200 mm (+/- 0.5 mm) (+/- 0.5 mm) 24 mm (+/- 6%) 3600 gsm

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

Horizon Rectangle direct fixed on clips - Test No: T1805-1 Horizon Rectangle suspended 200 mm - Test No: T1805-22 Horizon Rectangle suspended 400 mm - Test No: T1805-21 Horizon Rectangle suspended 800 mm - Test No: T1805-11



### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.

# Acoustic performance

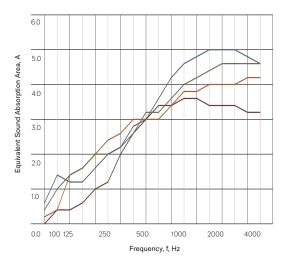
Horizon Square is specifically designed to reduce and control reverberated noise and echo in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	Per unit
•	Horizon Square (Fixed on clips)	0.2	1.5	1.3	1.7	1.7	1.6	1.3
•	Horizon Square (24 mm suspended 200 mm	0.2	1	1.5	1.7	2.1	2.1	1.6
•	Horizon Square (24 mm suspended 400 mm	<sub>n)</sub> 0.5	1	1.3	1.8	2.2	2.3	1.6
•	Horizon Square (24 mm suspended 800 mm	<sub>n)</sub> 0.7	0.8	1.4	2.1	2.5	2.4	1.7

All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at 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

Horizon Square direct fixed on clips - Test No: T1805-2 Horizon Square suspended 200 mm - Test No: T1805-14 Horizon Square suspended 400 mm - Test No: T1805-13 Horizon Square suspended 800 mm - Test No: T1805-12





# **Product specifications**

Product name Composition Panel dimensions Tolerance Thickness Tolerance Weight Horizon<sup>™</sup> Right Angle Triangle 100% polyester fibre 1159 mm x 1159 mm (+/- 0.5 mm) (+/- 0.5 mm) 24 mm (+/- 6%) 3600 gsm

### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.

# Acoustic performance

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

	Frequency (Hz)	125	250	500	1000	2000	4000	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	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

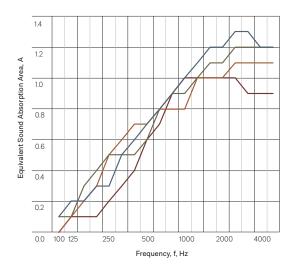
All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

### Product specifications

Product name Composition Panel dimensions Tolerance Thickness Tolerance Weight Horizon™ Circle 100% polyester fibre 1200 mm diam. (+/- 0.5 mm) 24 mm (+/- 6%) 3600 gsm

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

Horizon Right Angle Triangle direct fixed on clips - Test No: T1805-3 Horizon Right Angle Triangle suspended 200 mm - Test No: T1805-19 Horizon Right Angle Triangle suspended 400 mm - Test No: T1805-20 Horizon Right Angle Triangle suspended 800 mm - Test No: T1805-10



### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.



# Acoustic performance

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

	Frequency (Hz)	125	250	500	1000	2000	4000	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	<sub>n)</sub> 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	n) 0.4	0.6	1.1	1.6	1.9	1.9	1.3

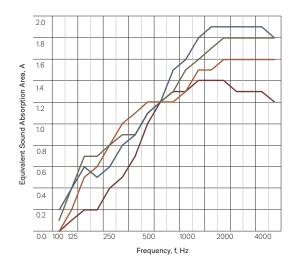
All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz and 2000 Hz and rounded to the nearest 0.05.

# **Product specifications**

Product name	Horizon™ Hexagon
Composition	100% polyester fibre
Panel dimensions	1100 mm across the widest point
Tolerance	(+/- 0.5 mm)
Thickness	24 mm
Tolerance	(+/- 6%)
Weight	3600 gsm

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

Horizon Circle direct fixed on clips - Test No: T1805-5 Horizon Circle suspended 200 mm - Test No: T1805-15 Horizon Circle suspended 400 mm - Test No: T1805-16 Horizon Circle suspended 800 mm - Test No: T1805-9



### Installation

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

In situations where product is being installed near fire protection systems (e.g. sprinklers or fire alarms) relevant building codes, standards and design rules must be adhered to. Please consult the project engineer and relevant expert such as a fire protection engineer.

# Acoustic performance

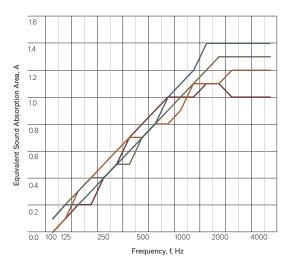
Horizon Circle is specifically designed to reduce and control reverberated noise and echo in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	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 mn	n) 0.1	0.5	0.7	0.9	1.1	1.2	0.8
•	Horizon Hexagon (2 4mm suspended 400 mm	<sub>n)</sub> 0.2	0.4	0.7	1.0	1.3	1.3	0.9
•	Horizon Hexagon (24 mm suspended 800 mn	<sub>n)</sub> 0.2	0.4	0.7	1.1	1.4	1.4	0.9

All results are reported in metric sabin - per unit. Equivalent sound absorption area according to ISO 354 measurement of sound absorption in a reverberation room. Average absorption (sabins per unit) calculated at 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

Horizon Hexagon direct fixed on clips - Test No: T1805-4 Horizon Hexagon suspended 200 mm - Test No: T1805-18 Horizon Hexagon suspended 400 mm - Test No: T1805-17 Horizon Hexagon suspended 800 mm - Test No: T1805-8





# Product specifications

# 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

Australian Group Number: Group 1 (SMOGRARC): less than 100m2/s2 Tested using methodology AS ISO 9705:2003 in accordance with AS 563712015, as required by BCA Specification C110-4. FAR 4055

### BS EN 13501-1:2018

Wall applications Classification: B-s2,d2 (Cube<sup>™</sup> 24 mm) Tested using BS EN ISO 11925-22020 and BS EN 138232020 and classified in accordance with BS EN 13501-12018, as required by BS EN 151022007 + A12011 EUI-21-000135-G-A Ceiling applications Classification: B-s2,d2 (Cube<sup>™</sup> 24 mm) Tested using BS EN ISO 11925-22020 and BS EN 138232020 and classified in accordance with BS EN 13501-12018, as required by BS EN 139642014. EUI-21-000135-G-B

### ASTM E-84-15a

Class A, FS:0 - SD:65 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

bed and ys: Non-woven. No pattern repeat, but product has directional e grain. Product may vary from samples and batch to batch o growth) due to fibre blending and layromote the up, which is an inherent feature nd mildew. 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.

have undertaken extensive

destructive testing of Autex

ceiling system components.

Colour fastness to rubbing

Dry rating: 4-5 (Highest = 5)

Wet rating: 4-5 (Highest = 5)

account manager.

ISO 105-X12:2016

For detailed mechanical testing

information please contact your

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

### Environmental

Autex Acoustics is committed to best practice through our ISO 14001 certified Environmental Management Systems.

Horizon contains a minimum of 60% previously recycled polyester fibre (from PET bottle-flake). Off-cuts and manufacturing waste are re-used or recycled wherever possible.

Horizon is manufactured from 100% polyester fibre and does not contain formaldehyde binders. Autex Acoustics polyester fibre supports safer indoor air quality and will not become a potential airborne pollutant.

### Service

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

Light r	efle	ectance
values	by	colour

Horizon 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



Caring for the environment

Horizon is manufactured using 100% polyester fibre and contains a minimum of 60% recycled fibre (from PET plastics). Our products are designed to be recycled at the end of their life too.

We have continual improvement programmes in which we implement a range of initiatives to mitigate the environmental 'hotspots' that we have identified. Our products are GreenRate Level A, Health Product Declaration (HPD), and CDHP Standard certified. Horizon is made from Cube which is DeclareSM certified to be Red List free and can be used in Living Building Challenge projects. Autex has a high functioning Environmental Management System (ISO 14001) to enhance our environmental performance and contribute to sustainable development.



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