Product overview

Lattice™ is a range of hanging sculptures built from a grid of acoustic fins. Covering a greater surface area than traditional parallel fin systems, Lattice effectively absorbs echo and reverberation in interior spaces. Lattice is made from 100% polyester fibre and is lightweight and structurally sound—holding form over its lifetime.

Specification

Suspended acoustic absorption system shall be Lattice made from thermally bonded polyester containing not less than 60% recycled material as manufactured by Autex. www.autexglobal.com

Suspended acoustic absorber Lattice Eclipse/Torus/Trapezium, colour (_), sound absorption Class A, NRC 1.00– if direct fixed to ceiling: Class A, NRC 1.00. Fire rating ASTM E-84-14: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.

Lattice to be supplied unassembled with 4 x 1m galvanised cables, 4 x ceiling mounts, 4 x "Velda" cable clips, 4 x alloy tube inserts. Install as per Lattice (Eclipse, Torus, Trapezium) Install Instructions.

Suspended acoustic absorber 1450 x 1450 x 293 mm (nom. depth), 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 , BS EN 13501-1:2018:B - s2, d0.

Lattice to be supplied unassembled with 8 x 1m galvanised cables, 8 x ceiling mounts, 8 x "Velda" cable clips. Install as per Lattice Install Instructions.

Colour options

Falling Water	Rosada	Beehive
Galaxy	Opera	Parthenon
Pinnacle	Senado	Sargazo
Petronas	Acros	
Empire	Bosco	
Flatiron	Lotus	
Savoye	Tree House	
Pavilion	Gherkin	
Ironbank	Muralla	
Zenith	Cavalier	

Product specifications

Product name	Lattice™ Eclipse
Composition	100% polyester fibre (PET)
Assembled size	1197 mm x 2346 mm x 337 mm
Tolerance	(+/- 0.5 mm) (+/- 0.5 mm) (+/- 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

Lattice Eclipse is specifically designed to reduce and control reverberated noise and echo in building interiors.
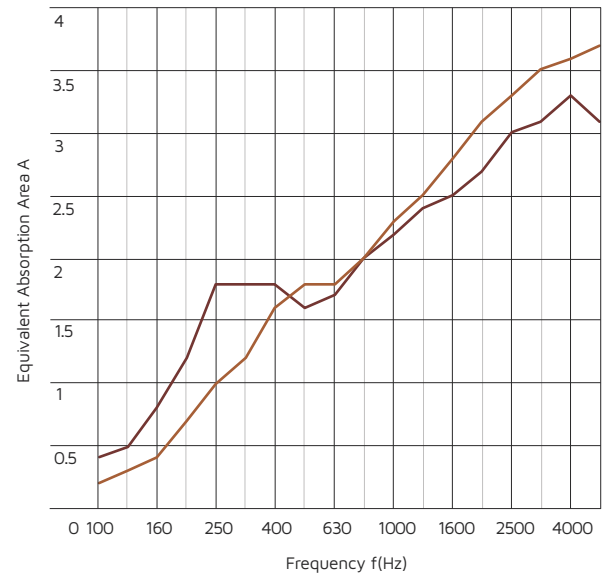
Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
Lattice Eclipse (12 mm Direct Fix)	0.60	1.60	1.70	2.20	2.80	3.20	2.10
Lattice Eclipse (12 mm Suspended 200 mm)	0.30	1.0	1.80	2.30	3.10	3.60	2.05

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
Lattice Eclipse 12 mm direct fix - test no: T1420-1
Lattice Eclipse 12 mm suspended 200 mm - test no: T1409-7

Product specifications

Product name	Lattice™ Torus
Composition	100% polyester fibre (PET)
Assembled size	1450 mm x 1450 mm x 293 mm
Tolerance	(+/- 0.5 mm) (+/- 0.5 mm) (+/- 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.
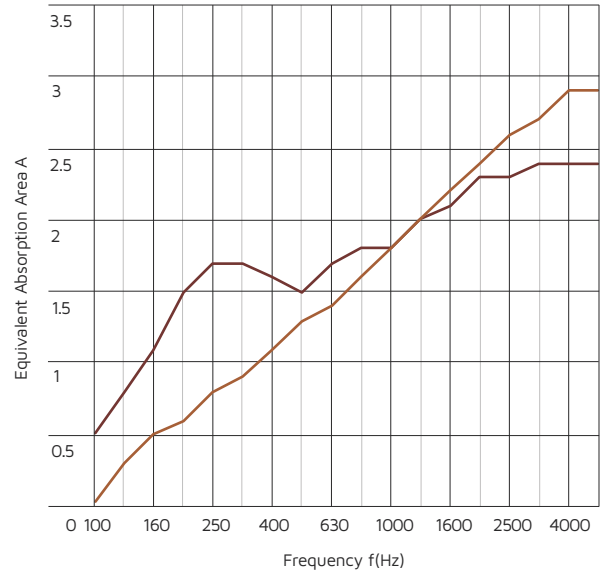
Acoustic performance

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

	Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
●	Lattice Torus (12 mm direct fix)	0.80	1.70	1.60	1.90	2.80	2.30	1.85
●	Lattice Torus (12 mm suspended 200 mm)	0.30	0.80	1.30	1.80	3.10	2.40	1.60

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
Lattice Torus 12 mm direct fix - test no: T1420-2
Lattice Torus 12 mm suspended 200 mm - test no: T1420-3

Product specifications

Product name	Lattice™ Trapezium
Composition	100% polyester fibre (PET)
Assembled size	1180 mm x 2380 mm x 290 mm
Tolerance	(+/- 0.5 mm) (+/- 0.5 mm) (+/- 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.
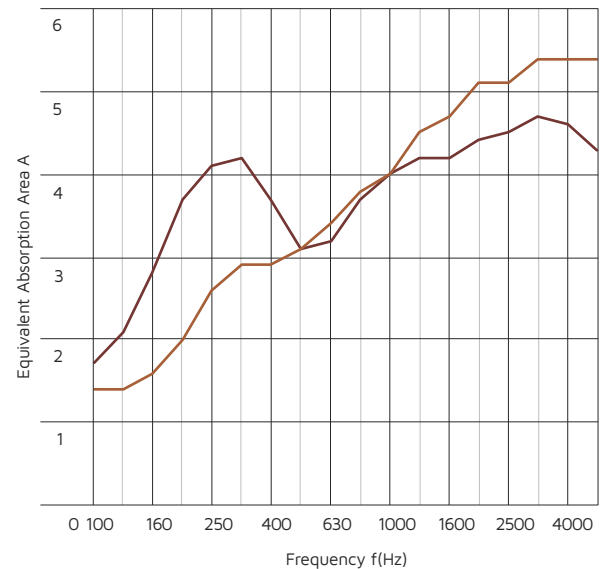
Acoustic performance

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

	Frequency (Hz)	125	250	500	1000	2000	4000	Metric sabin per unit
●	Lattice Trapezium (12 mm direct fix)	2.20	4.0	3.40	4.0	4.40	4.60	3.90
●	Lattice Trapezium (12 mm suspended 200 mm)	1.50	2.50	3.20	4.10	5.0	5.40	3.70

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
Lattice Trapezium 12 mm direct fix - test no: T1326-16
Lattice Trapezium 12 mm suspended 200 mm - test no: T1326-14

Product specifications

Fire ratings
Lattice is made from Cube™ as the base material. Cube (12mm) 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
Ceiling applications
Classification: B-s2,d0
(Cube™ 12mm)
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

VOC emissions
Autex Acoustics 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)
Lattice does not promote the growth of moulds and mildew.

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

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

Lattice 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.

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

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

Light reflectance values by colour

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

Colour	LRV	Colour	LRV
Pavilion	80	Galaxy	15
Opera	49	Lotus	14
Savoye	46	Ironbank	13
Senado	45	Cavalier	12
Rosada	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		

Caring for the environment

Lattice 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, LCARate Gold and PHD level platinum certified.

Lattice 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.

Telarc. Registered
cert TM
Environment
ISO 14001

Red List Free

Declare.

GLOBAL GREEN TAG CERTIFIED
trust brands
GreenRate Level A

hpd c MEMBER

FDB | commercial interiors

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