Autex Acoustics®

Lattice Data Sheet

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.

Sustainable material

- Carbon neutral product
- Zero carbon manufacturing
- Recycled content
  - >80% recycled material
- Low VOC and CDPH compliant
  - <0.092mg/m³ (7 days)
- Zero waste manufacturing initiative
- Sustainable supply chain and anti-modern slavery

Environmental credentials

- 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 autexglobal.com, or speak with your Autex Acoustics account manager.

Specification

Suspended acoustic absorption system shall be Lattice made from thermally bonded polyester containing not less than 80% recycled material as manufactured by Autex Acoustics. autexglobal.com

Direct fixed 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-84-15a: 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 - s1, d0.

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

Suspended acoustic absorber Lattice Eclipse/Torus/Trapezium (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 1, BS EN 13501-1:2018: B - s1, d0.

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

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.

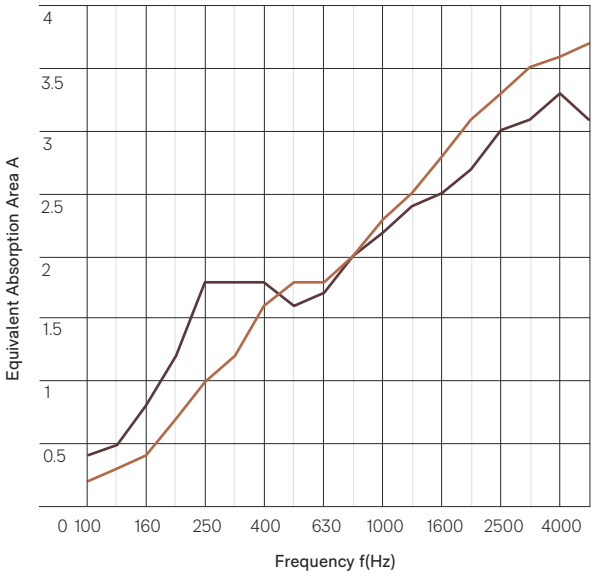
Acoustic performance

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)	0.5	1.8	1.6	2.2	2.7	3.3	2.10
●	**Lattice Eclipse** (12 mm Suspended 200 mm)	0.3	1.0	1.8	2.3	3.1	3.6	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.

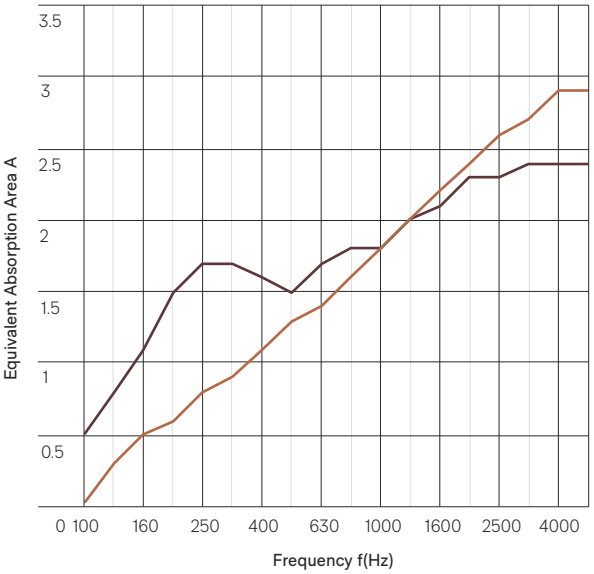
Acoustic performance

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)	0.5	1.5	1.6	1.8	2.1	2.4	1.75
●	**Lattice Torus** (12 mm suspended 200 mm)	0.3	0.8	1.3	1.8	2.4	2.9	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.

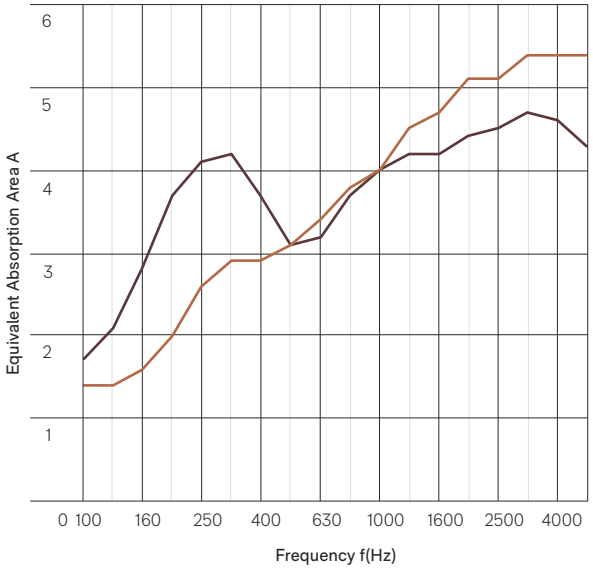
Acoustic performance

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)	2.1	4.1	3.1	4.0	4.4	4.6	3.90
●	**Lattice Trapezium** (12 mm suspended 200 mm)	1.4	2.6	3.1	4.0	5.1	5.4	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 (12 mm) 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
Ceiling applications
Classification: B-s1, d0
(Cube™ 12 mm)
Tested according to BS EN ISO 11925-2:2020 and BS EN 13823:2020 + A1:2022 and classified in accordance with BS EN 13501-1:2018, as required by BS EN 13964:2014. 7191361939-MEC25/03-JV

ASTM E-84-15a
Class A, FS:0 - SD:45
(Cube™ 12 mm)
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)
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.

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

Acros	40
Beehive	33
Canyon	19
Caspian	6
Cavalier	12
Colosseum	52
Empire	5
Falling Water	34
Flatiron	24
Gherkin	8
Highland	19
Muralla	9
Opera	49
Parthenon	33
Pavilion	80
Petronas	2
Pinnacle	3
Rushmore	41
Sargazo	4
Savoye	46
Senado	44
Terrace	24
Tree House	3

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