



**Autex
Acoustics®**

Cube™

Distributed by



Data Sheet

Product overview

Cube™ is a versatile acoustic panel designed for a variety of interior applications. Available in 12 mm and 24 mm thicknesses, Cube panels are lightweight and semi-rigid—made from 100% polyester fibre. Cube panels are customisable with Print, Mould & Press, Precision Cut, Groove, and Peel 'n' Stick, and require no edging or capping.

Specification

(Wall) treatment shall be Cube™ from thermally bonded high density polyester containing not less than 60% recycled material as manufactured by Autex

Panel 1220 x 2440 x ()mm (nom.) depth, colour (), sound absorption 12 mm: Class D, NRC 0.45 – with 24 mm air gap: Class C, NRC 0.70. 24 mm: Class D, NRC 0.70

– with 24 mm air gap: Class C, NRC 0.80.
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, 12 mm BS EN 13501-1:2018: B - s2, d0, 24 mm BS EN 13501-1:2018: B - s2, d2.

If Cube is to be specified for use other than as a wallcovering, please seek guidance from your account manager..

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	Cube™
Composition	100% polyester fibre
Panel dimensions	1220 mm x 2440 mm
Tolerance	(+ 5 mm) x (+ 10 mm)
Thickness	12 mm 24 mm
Tolerance	(+/- 6%) (+/- 6%)

Thermal performance

(Internally tested by Autex Lab)

Cube 12 mm	R0.41 (@15°C)
Cube 24 mm	R0.82 (@15°C)

Installation

Install as per Autex Acoustics recommendations. Install instructions are included in each pack or available on the website. If Cube is to be specified for use other than as a wallcovering, please seek guidance from your account manager.



Product specifications

Fire ratings

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
(SMOGR_{arc}): <100m²/s²
Assessed using methodology AS ISO 9705 - 2003 in accordance with AS 5637:2015, as required by BCA Specification C110-4
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

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

Wall applications

Classification: B-s2,d2
(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. EUI-21-000135-G-A

Ceiling applications
Classification: B-s2,d2
(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. EUI-21-000135-G-B

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

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 adsorbed after 4 days: 0.4% by weight

Impact resistance

ISO 7892:1988

Hard body impact

There is no surface damage or penetration to Cube when subjected to hard body impacts. When adhered to 10 mm plasterboard, the system can resist a 9 joule impact. This is equivalent to the impact of a 0.5 kg object dropped from a 2 m height. A small indentation might be observed when subjected to an impact equivalent to the impact of a 0.5 kg object dropped from a 0.5 m height.

Soft body impact

There is no surface damage or penetration to Cube when subjected to soft body impacts. When adhered to 10 mm plasterboard, the system can resist a 70 joule impact. This is equivalent to the impact of a 50 kg object dropped from a 150 mm height.

Microbial resistance

ASTM G21-15

Growth rating: 0 (No growth)
Cube does not promote the growth of moulds and mildew.

Colour fastness to light

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

Environmental

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

Cube 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.

Cube 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 Cube or any other Autex Acoustics product, please contact your account manager or visit our website.

Acoustic performance

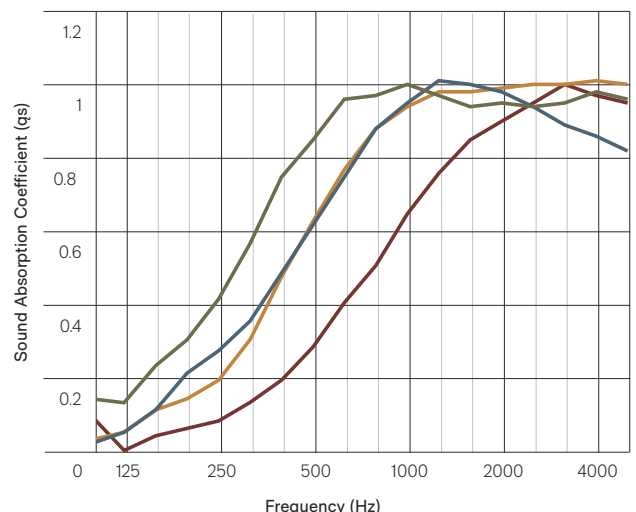
Cube is specifically designed to reduce and control reverberated and echo noise in building interiors.

	Frequency (Hz)	125	250	500	1000	2000	4000	NRC
● 12 mm Cube		0.05	0.10	0.30	0.65	0.90	0.95	0.45
● 12 mm Cube (with 25 mm air gap)		0.05	0.30	0.60	0.95	0.95	0.85	0.70
● 24 mm Cube		0.05	0.20	0.60	0.90	1.00	1.00	0.70
● 24 mm Cube (with 25 mm air gap)		0.15	0.40	0.85	0.95	0.95	0.95	0.80

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.

Absorption Coefficient According to ISO 354 University of Auckland Testing Service

Cube (12 mm) - Test No. T0712-3
Cube (12 mm with 25 mm air gap) - Test No. T0712-6
Cube (24 mm) - Test No. T1961-1
Cube (24 mm with 25 mm air gap) - Test No. T1326-2





Light reflectance values by colour

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

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

Cube 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.

Cube 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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