



Cube™ is manufactured by Autex Industries Ltd and Autex Australia Pty Ltd under an ISO 9001 and ISO 14001 certified Quality and Environmental 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.

Specification

Product name Cube™
Description 100% polyester lightweight semi-rigid panel

| | Metric | |
|------------------|-------------------|----------|
| Panel dimensions | 1220 mm x 2440 mm | |
| Tolerance | (±5 mm) (+10 mm) | |
| Thickness | 12 mm | 24 mm |
| Tolerance | (±/- 6%) | (±/- 6%) |

**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

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

Minimum Noise Reduction Coefficient 0.45

| 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 |

Service

For further information about Cube or any other Autex Acoustics® product, please contact your 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). Cube contains a minimum of 60% previously recycled polyester fibre.

Suitable applications

Pinboards, partitions, wallcovering with acoustic properties. Accepts pins and staples.

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

Thermal performance

Cube 12 mm R0.41 (@15°C)

Cube 24 mm R0.82 (@15°C)

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

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 reused 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.

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