



**Autex  
Acoustics®**

Cube™

Manufacturer's Guarantee

Cube™ is manufactured by Autex Industries Ltd and Autex Australia Pty Ltd under an ISO 9001 certified Quality Management System. 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	1220mm x 2440mm	
Tolerance	(+5mm) (+10mm)	
Thickness	12mm	24mm
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 (echo) noise in building interiors.

Minimum Noise Reduction Coefficient 0.45

	Frequency (Hz)	125	250	500	1000	2000	4000	NRC
● <b>12mm Cube</b>		0.05	0.10	0.30	0.65	0.90	0.95	0.45
● <b>12mm Cube</b> (with 25mm air gap)		0.05	0.30	0.60	0.95	0.95	0.85	0.70
● <b>24mm Cube</b>		0.05	0.20	0.60	0.90	1.00	1.00	0.70
● <b>24mm Cube</b> (with 25mm 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 product, please contact your Autex 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: <5.0m<sup>2</sup>/s

As required by NZBC C/VM2

### AS ISO 9705 - 2003

Classification: Group 1  
(SMOGR)Arc: <100m<sup>2</sup>/s<sup>2</sup>

Assessed using methodology AS ISO 9705 - 2003 in accordance with AS 5637:2015, as required by BCA Specification C1.10-4 Fl 4974 FAR 4055

### BS EN 13501-1:2018

Wall applications  
Classification: B-s<sub>2</sub>d<sub>0</sub>  
(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 15102:2007 + A1:2011.

EUI-20-000268-A

### Ceiling applications

Classification: B-s<sub>2</sub>d<sub>0</sub>  
(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

### Wall applications

Classification: B-s<sub>2</sub>d<sub>2</sub>  
(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-s<sub>2</sub>d<sub>2</sub>  
(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™ 12mm R0.41 (@15°C)  
Cube™ 24mm R0.82 (@15°C)

### VOC Emissions

Autex polyester has been tested for chemical emissions in accordance with ASTM D5116 and is considered as a low VOC product.  
VOC concentration: 0.009 mg/m<sup>3</sup> (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 10mm plasterboard, the system can resist a 9-joule impact.

This is equivalent to the impact of a 0.5kg object dropped from a 2m height. A small indentation might be observed when subjected to an impact equivalent to the impact of a 0.5kg 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 10mm plasterboard, the system can resist a 70-joule impact. This is equivalent to the impact of a 50-kg object dropped from a 150mm 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™ Cleaning and Maintenance Guide for more information.

### Finish

Non-woven. No pattern repeat but Cube™ has a 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.

## Environmental

Autex is committed to best practice through our ISO 9001 and ISO 14001 certified Quality and Environmental Management Systems. Autex 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. Autex Cube™ is manufactured from 100% polyester fibres and does not contain formaldehyde binders. Autex polyester fibres support safer indoor air quality and will not become a potential airborne pollutant.

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