



**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		Imperial	
Panel Dimensions	1220mm x 2440mm		4' x 8'	
Tolerance	(±5mm/-0mm) x (±10mm/-0mm)		(±0.20") x (0.40")	
Thickness	12mm	24mm	1/2"	1"
Tolerance	(±/- 6%)	(±/- 6%)	(±/- 6%)	(±/- 6%)
Weight	2400gsm	3600gsm	7.86oz/ft2	12oz/ft2
Density	192kg/m3			

Physical Description / Properties

Boiling Point	N/A
Melting Point:	250°C 482°F
Vapour Pressure:	N/A
Specific Gravity:	Polyester 1.38
Flash point:	N/Aw
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
● 12mm Cube	0.05	0.10	0.30	0.65	0.90	0.95	0.45
● 12mm Cube (with 25mm air gap)	0.05	0.30	0.60	0.95	0.95	0.85	0.70
● 24mm Cube	0.05	0.20	0.60	0.90	1.00	1.00	0.70
● 24mm Cube (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. Cube™ is a trademark of Autex Industries Limited and Autex Pty.

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.

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)

Thermal Performance

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

Fire Ratings

(Conducted on 12mm Cube™)

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
As required by BCA C1.10
Fl 4974 dated 16th September, 2012

EN13501-1:2007+A1:2009

B - s2, d2
WF 336911 dated 25th February, 2014

ASTM E-84-14

Class A, FS:0 - SD:45
RI4479-2 dated 25th January, 2015

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/m³ (7 days)

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.

Moisture Absorption

Polyester fibre when exposed to an atmosphere of 50°C at 90% relative humidity for four days showed moisture absorption

of less than 0.03% by weight. Polyester is not affected by moisture, mould or mildew and will not rot or deteriorate in intended use situations.

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

Refer to Cleaning Guide
www.autexindustries.com

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.

Environmental

Autex Cube is manufactured using 100% polyester fibre and contains a minimum of 50% post consumer recycled content (i.e. PET plastic bottles).

Autex Cube is Global GreenTag GreenRate Level A certified and can be used to contribute to Green Star NZ accreditation. Autex Cube™ is also Declare certified to be Red-List Free and can be used in Living Building Challenge projects.

All Autex product declarations are independently verified under the auditing process of our ISO 14001 Environmental Management System. For more information, please contact your Autex Account Manager, or visit our website www.autexindustries.com

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