INTERIOR ACOUSTICS

CUBE™

MANUFACTURERS 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.

Product Name Cube™

Description 100% polyester lightweight semi-rigid panel

AUTEX	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			

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
(SMOGRARC): <100m2/s2
Assessed using methodology AS ISO 9705 - 2003 in accordance with AS 5637.1:2015, as required by BCA Specification C1.10-4
FI 4974 dated 16th September, 2012
FAR 4055-2 dated 8th October 2013

EN13501-1:2007+A1:2009
B - s2, d2
WF336911 dated 25th February 2014

ASTM E-84-15a
Class A, FS:0 - SD:45
RJ4479-2 dated 25th January, 2015

ACOUSTIC PERFORMANCE

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

Minimum Noise Reduction Coefficient 0.45

Sound Absorption Coefficients according to ISO 354.
University of Auckland Testing Service Cube 12mm - Test No. T071-23.
Cube 24mm - Test No. T1961-1 and T1326-5

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

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.

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.

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/A
Explosive limits:	N/A
Solubility in water:	Not soluble
Alkalinity:	pH 7.8
Relative Vapour Density:	N/A

CARE AND MAINTENANCE

Maintain in accordance with the Care and Maintenance Guide available for this product.