

INTERIOR ACOUSTICS  
**CUBE™**  
**DATASHEET**



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## CUBE™

Cube™ is a lightweight but semi-rigid panel made from compressed polyester felt that has endless design flexibility. In standard panel sizes with options of 12mm or 24mm thicknesses, Cube works hard to reduce reverberation and control background chatter.

Cube can be cut, printed on or moulded with no need for edging or capping. It can be used in ceilings, as panels between workspaces or in bespoke installations with custom designs. And if that wasn't enough, just stick it straight to the wall with our Peel 'n' Stick backing options.

If you have your own ideas, our in-house design team are on hand to turn your vision into reality.

### APPLICATIONS

- Decorative and functional acoustic wall covering for education, retail and commercial interiors
- Media for creative solutions
- Acoustic pinboard surface for education and commercial sectors
- Modular room divider for display, privacy and sound absorption

### SPECIFICATION

(Wall) treatment shall be Autex Cube™ from thermally bonded high density polyester containing not less than 60% recycled material as manufactured by Autex [www.autexindustries.com](http://www.autexindustries.com)

Panel 1220 x 2440 x ( )mm (nom.) depth, colour ( ), sound absorption  
12mm: Class D, NRC 0.45 – with 24mm air gap: Class C, NRC 0.70.  
24mm: Class D, NRC 0.70 – with 24mm air gap: Class C, NRC 0.80.  
Fire rating ISO 9705: Classification: Group 1-S, AS ISO 9705 – 2003  
Classification: Group 1, EN13501-1:2007+A1:2009: B - s2, d2.

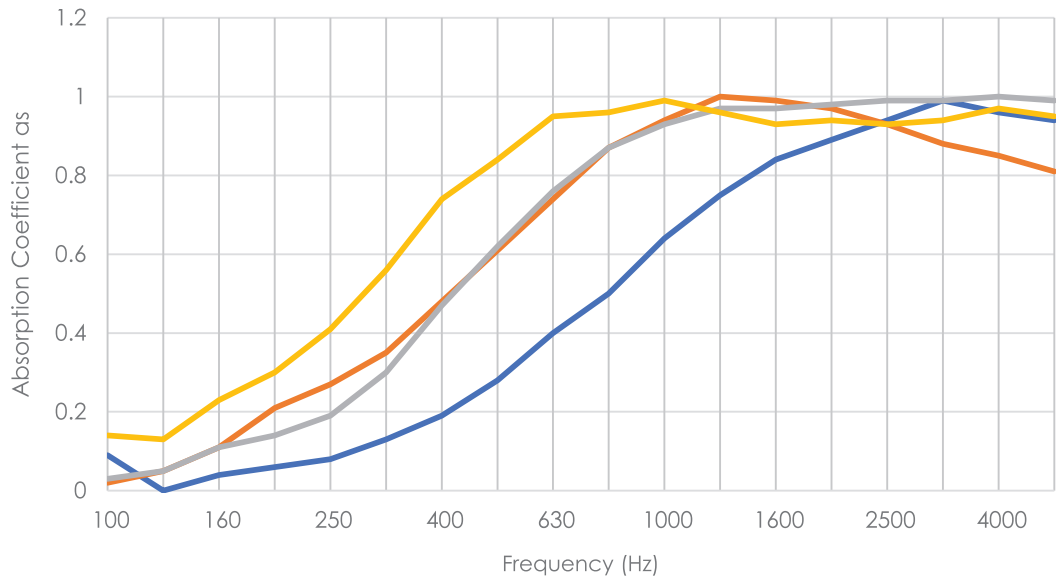
Install as per Autex recommendations.

If Autex Cube™ is to be specified for use other than as a wall covering, please seek guidance from your Autex Account Manager.



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## ABSORPTION COEFFICIENT ACCORDING TO ISO 354



Frequency (Hz)	University of Auckland Test Report Number	125	250	500	1000	2000	4000	NRC
<b>12mm<sup>α<sub>p</sub></sup> Cube</b>	T0712-3	0.05	0.10	0.30	0.65	0.90	0.95	<b>0.45</b>
<b>12mm<sup>α<sub>p</sub></sup> Cube (with 25mm air gap)</b>	T0712-6	0.05	0.30	0.60	0.95	0.95	0.85	<b>0.70</b>
<b>24mm<sup>α<sub>p</sub></sup> Cube</b>	T1961-1	0.05	0.20	0.60	0.90	1.00	1.00	<b>0.70</b>
<b>24mm<sup>α<sub>p</sub></sup> Cube (with 25mm air gap)</b>	T1326-2	0.15	0.40	0.85	0.95	0.95	0.95	<b>0.80</b>

Table presents the practical sound absorption coefficients as according to ISO 11654. 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.

### PRODUCT SPECIFICATIONS

Product Name	Cube™	
Composition	100% Polyester Fibre	
Panel Dimensions	1220mm x 2440mm	
Tolerance	(+5mm) x (+10mm)	
Thickness	12mm	24mm
Tolerance	(+/-6%)	(+/-6%)
Weight	2400gsm	3600gsm

### THERMAL PERFORMANCE

(Internally tested by Autex Lab)

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

### INSTALLATION

Install as per Autex 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 Autex account manager.

### LIGHT REFLECTANCE VALUES BY COLOUR

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

Pavilion	78	Zenith	22
Opera	49	Lotus	16
Savoye	47	Galaxy	16
Senado	45	Iron Bank	13
Rosada	45	Pinnacle	8
Acros	42	Empire	6
Falling Water	36	Tree House	3
Bosco	29	Petronas	2
Flatiron	25		



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### **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  
(SMOGRARC): <100m<sup>2</sup>/s<sup>2</sup>  
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 (Cube™ 12mm)  
WF336911 dated 25th February 2014

#### **ASTM E-84-15a**

Class A, FS:0 - SD:45 (Cube™ 1/2")  
RJ4479-2 dated 25th January, 2016

Class A, FS:0 - SD:65 (Cube™ 1")  
RJ4479-1 dated 25th January, 2016

### **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

### **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.

### **SERVICE**

For further information about Cube™ or any other Autex product, please contact your Autex account manager or visit our website.



AUTEX INDUSTRIES

## COLOUR OPTIONS



MOQ's apply to some colours. To find out more, or to order a sample, please contact your Account Manager or visit our website.