INTERIOR ACOUSTICS

CUBE™ DATASHEET

CUBE™

Cube™ is a lightweight but semi-ridged 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

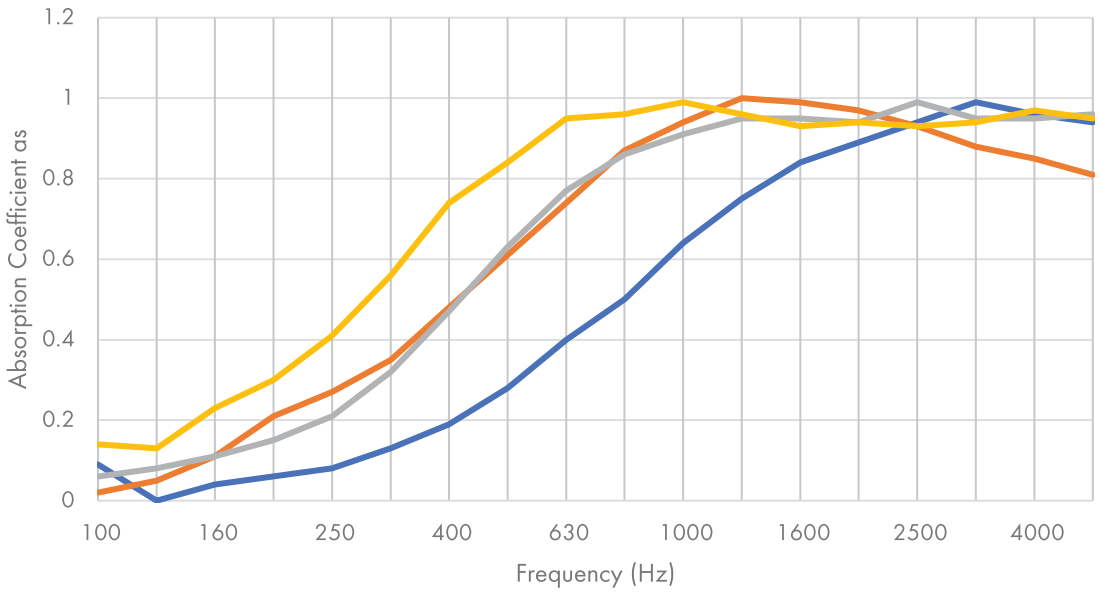
(Wall) treatment shall be Autex Cube™ from thermally bonded high density polyester containing not less than 45% recycled material as manufactured by Autex www.autexindustries.com

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 0.65 – 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.

ABSORPTION COEFFICIENT ACCORDING TO ISO 354



Frequency (Hz)	University of Auckland Test Report Number	125	250	500	1000	2000	4000	NRC
α_P 12mm Cube	T0712-3	0.05	0.10	0.30	0.65	0.90	0.95	**0.45**
α_P 12mm Cube (with 25mm air gap)	T0712-6	0.05	0.30	0.60	0.95	0.95	0.85	**0.70**
α_P 24mm Cube	T1316-4	0.10	0.25	0.60	0.90	0.95	0.95	**0.65**
α_P 24mm Cube (with 25mm air gap)	T1326-2	0.15	0.40	0.85	0.95	0.95	0.95	**0.80**

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	2300gsm	4600gsm

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		

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
(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 (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/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 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 45% 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.

COLOUR OPTIONS

Cube™

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