

# SORBERBARRIER dBX MLDS AGC

# high-performance melamine absorber-barrier composite

Sorberbarrier dBX MLDS AGC is a unique, multilayered noise control product that offers both noise transmission loss and sound absorption. The composite is comprised of two layers of Sorbermel melamine resin-based foam, bonded together with an inlay of a foil layer and a flexible mass barrier layer, Wavebar dBX. An aluminium foil-covered glass cloth facing (Sorbertextile AGC) is laminated to the surface of the melamine foam layer.

The melamine exhibits excellent resistance to hydrolysis and combustion. The use of an aluminium foil-covered glass cloth face provides additional protection to the foam from mechanical stress and dirt, oil and liquid ingress. The additional inner aluminium foil layer provides excellent vapour and fire barrier benefits.

The two layers of absorbing foam separate the barrier from the structure to which it is bonded, allowing it to remain flexible, thus enhancing noise transmission loss. Altering the thickness of foam that separates the noise barrier from the structure can improve the performance of Wavebar dBX in some frequencies without a substantial increase in overall weight.

Sorberbarrier dBX MLDS AGC is easy to cut, mechanically fasten and install. Combined with Sorbertextile AGC, the unique features makes it a highly versatile soundproofing product for controlling noise.

#### **VOC, ODP, HEALTH AND SAFETY**

Sorberbarrier dBX MLDS AGC is non-toxic and safe to handle by methods prescribed in the Safety Data Sheet. No Ozone depleting substances are used during the manufacture of Sorberbarrier dBX MLDS AGC.

### **SPECIFICATIONS**

Colour	Silver (Sorbertextile AGC Facing) and light grey (Sorbermel)
Available	Sheet size: 1.2 m x 1.2 m (3.9 ft x 3.9 ft)  Available in 18, 33, 45 mm (0.71, 1.30, 1.77 in) total thickness
	Custom kits, sizes, facing and/or thicknesses available depending on MOQ



# applications

- · Cavity space of locomotive and rolling stock
- Power generation units and containerised generator sets
- · Additional thermal and acoustic insulation for air-conditioning
- Engine compartments and firewalls of cars, trucks, buses and construction machinery
- Machinery and equipment enclosures
- Pool and spa motor enclosures
- Whitegoods industry
- General enclosures

## features

- Multifunction acoustic product absorber and barrier
- No ozone-depleting substances generated during manufacture
- Phenolic resins and irritating fibres not used during manufacture
- Low spread of flame surface
- Available as kits (depending on MOQ) quick and easily installed in specified applications
- Easy to cut, adhere or mechanically fasten into position
- Can be constructed with other decoupling layers such as Sorberpoly and/or Sorberfoam









## **PRODUCT SPECIFICATION**

Product	Total thickness	Construction Absorptive melamine layer (mm)/Mass barrier (kg)/ Decoupler (mm)	Standard sheet size	Operating temperature
Sorberbarrier dBX MLDS AGC 16/5	18 mm (0.71 in)	10/5/6		-40 °C to 100 °C (-40 °F to 212 °F)
Sorberbarrier dBX MLDS AGC 31/5	33 mm (1.30 in)	25/5/6	1.2 m x 1.2 m (3.9 ft x 3.9 ft)	continuous -40 °C to 120 °C
Sorberbarrier dBX MLDS AGC 41/5/5	45 mm (1.77 in)	25/5*/10/5*/6 *(double 5 kg barrier)		(-40 °F to 248 °F) intermittent

 $To lerances: Weight: \pm 0.5 \ kg \ (1.1 \ lb); Thickness: \pm 3 \ mm \ (0.1 \ in); Length \ and \ Width: -2 \ to \ +3 \ mm \ (-0.08 \ to \ +0.12 \ in)$ 

## **MATERIAL PROPERTIES**

Product	Test method	Property	Report no.	Results
	EN 45545-2 (ISO 5658-2)	Spread of flame		R1, R7, R8, HL3
	EN 45545-2 (ISO 5659-2: 50 kWm <sup>-2</sup> )	Heat release rate by cone calorimeter	515656 515657	
	EN 45545-2 (ISO 5660-1: 50 kWm <sup>-2</sup> )	Smoke generation (Optical density)		
Absorption layer	IMO FTP Part 5	Surface flammability	369547	Complies for bulkhead, walls and ceiling linings at 3 mm thickness or greater. USCG Type approval granted
	IMO FTP Annex 2	Smoke and toxicity		
	MED B	EC Type Examination (Module B) for Marine Equipment Directive	ERO2812/ MED0267TE	
	MED D	EC Type Examination (Module D) for Marine Equipment Directive	MEDD000028J	
	FMVSS-302 Automotive burn rate 147	14713JY4	Self-extinguishing	
Barrier layer –	IMO FTP Part 5	Surface flammability	427091	Complies for bulkhead, walls and ceiling linings
	IMO FTP Annex 2	Smoke and toxicity	377177	
	MED B	EC Type Certificate (Module B) for Marine Equipment Directive	MEDB000074V	
	MED D	EC Type Certificate (Module D) for Marine Equipment Directive	MEDD000028J	



 $<sup>{\</sup>it Please consult your sales representative as minimum order quantities may apply.}$ 

All above products are available with pressure-sensitive adhesive backing. Under extreme temperature and humidity conditions, air flow or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required. For all inverted installations including ceiling installations, mechanical fixing must be done in addition to pressure sensitive adhesive. Please consult your local Pyrotek representative for more information.







# ACOUSTIC PERFORMANCE ABSORPTIVE LAYER

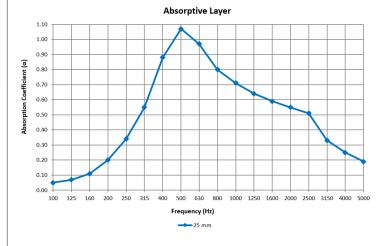
ADSORPTIVE LATER			
Frequency (Hz)	25 mm		
100	0.05		
125	0.07		
160	0.11		
200	0.20		
250	0.34		
315	0.55		
400	0.88		
500	1.07		
630	0.97		
800	0.80		
1000	0.71		
1250	0.64		
1600	0.59		
2000	0.55		
2500	0.51		
3150	0.33		
4000	0.25		
5000	0.19		
NRC	0.65		
SAA	0.65		
$a_{_{\rm w}}$	0.45 (M)		
	at University of Canterb		

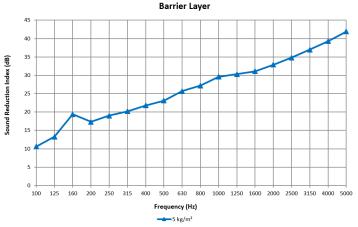
Tested to ISO 354:2003 at University of Canterbur, New Zealand | Report Number: 299

#### **BARRIER LAYER**

Frequency (Hz)	5 kg/m²
100	10.6
125	13.3
160	19.4
200	17.3
250	19.0
315	20.2
400	21.8
500	23.1
630	25.7
800	27.2
1000	29.6
1250	30.3
1600	31.1
2000	32.9
2500	34.8
3150	37.0
4000	39.3
5000	41.9
R <sub>w</sub>	28
STC	28

Tested to ISO 15186-1:2003 & 10140-4:2010 o University of Canterbury, New Zealand Report Number: 189(rev 1)b





For further information and contact details, please visit our website pyroteknc.com Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the situability of the product for their project needs. Always seek the opinion of your acoustic mechanical and file regineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this information or lost infringe any thing party's patients or rights.

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