

technical data sheet

P

Sound Absorbing Panel

P25 / P50 / P75 / P100

megasorber®



tough, durable
superior sound
absorption

P Sound Absorbing Panel

Megasorber P is a sound absorption panel consisting of a patented non-combustible sound absorbing facing Soundmesh® G8 and acoustic polyester-wool.

The Megasorber P panel utilises a patented non-combustible sound absorbing facing material Soundmesh® G8 and has superior sound absorption.

Soundmesh® G8 facing breaks soundwaves down into smaller components, then traps and dissipates the soundwave within the acoustic polyester behind it. The acoustic impedance of G8 is tuned to maximise the sound absorption.

In contrast, traditional sound reflecting film facings (such as aluminium foil, mylar film and polyurethane film) have little or zero acoustic properties and block noise from being absorbed by the underlying acoustic polyester.

BCA group 2 fire rating

Megasorber P has Building Code Australia (BCA) Group 2 fire rating as per AS ISO 9705 and AS5637.1-2015, and complies with IMO Resolution A653(16) requirements for marine applications.

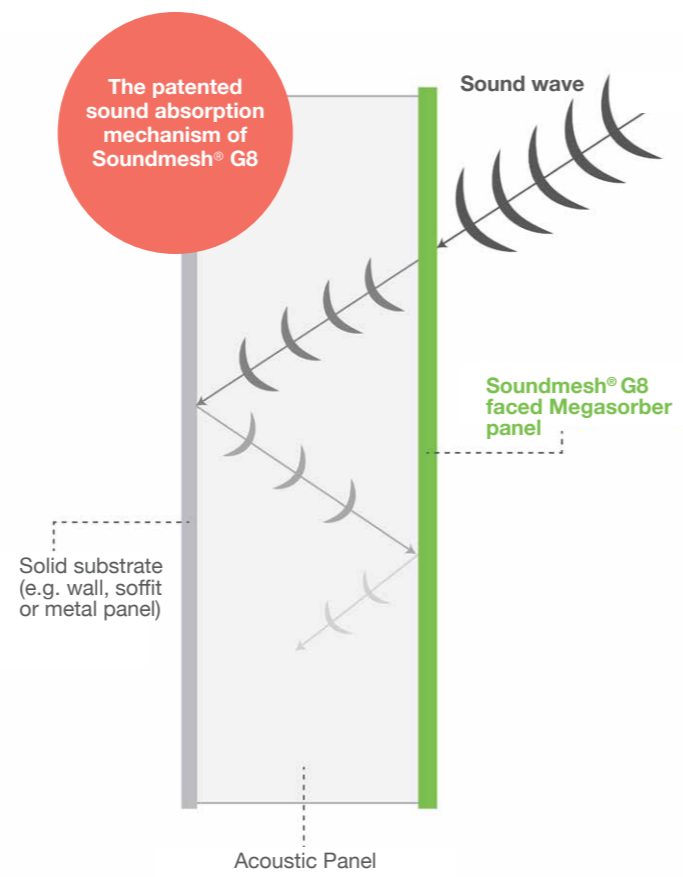
Colours

Soundmesh G8 colour facing options.



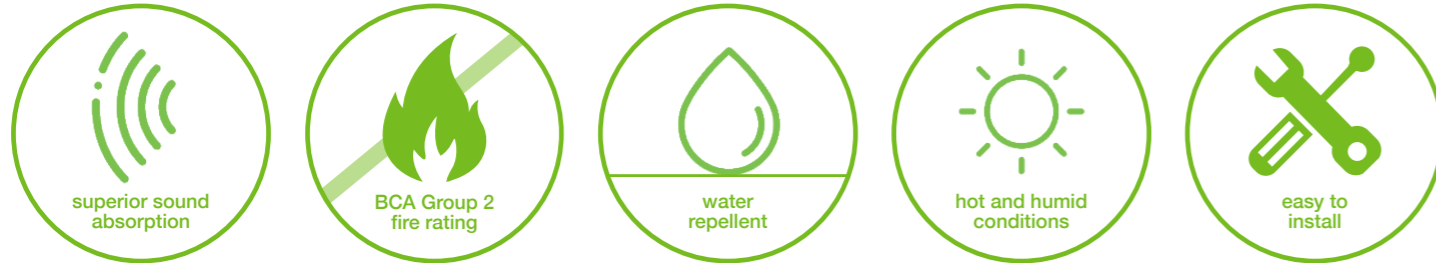
Tough, durable & suitable for outdoor applications

Megasorber P is hydrophobic (non-wicking) and has high durability in hot and humid conditions. Megasorber P is suitable for outdoor applications exposed to the elements. A water repellent G8 facing option is also available. The Soundmesh G8 facing is tough, strong and easy to clean. Dirt marks can be easily removed with Megasorber M8 cleaning blocks.



Megasorber P100 (grey) installed on walls and ceiling

Key Features



Superior sound absorption utilising patented technology.

BCA Group 2 fire classification.

IMO compliant for marine applications.

Hydrophobic (non-wicking).

Suitable for outdoor applications.

Water repellent facing (*optional*).

100% recyclable acoustic polyester wool.

Long service life i.e., will not deteriorate when exposed to hot and humid conditions.

Easy to install – can direct-fix using Megasorber A200 adhesive.

Easy to clean: dirt marks or fingerprints can be easily removed with Clean M8 block.

Applications

High-efficiency sound-absorbing material for noise reduction in:

All types of plant rooms, such as fan/exhaust, compressor, pump, control & generator rooms.

Generator and hydraulic power unit enclosures.

Dyno rooms.

HVAC systems.

Industrial sites, manufacturing plants and all types of heavy industry machinery.

Marine engine compartments and bulkheads.

Transformer and power system enclosures.

Technical Specifications

1. Product Codes

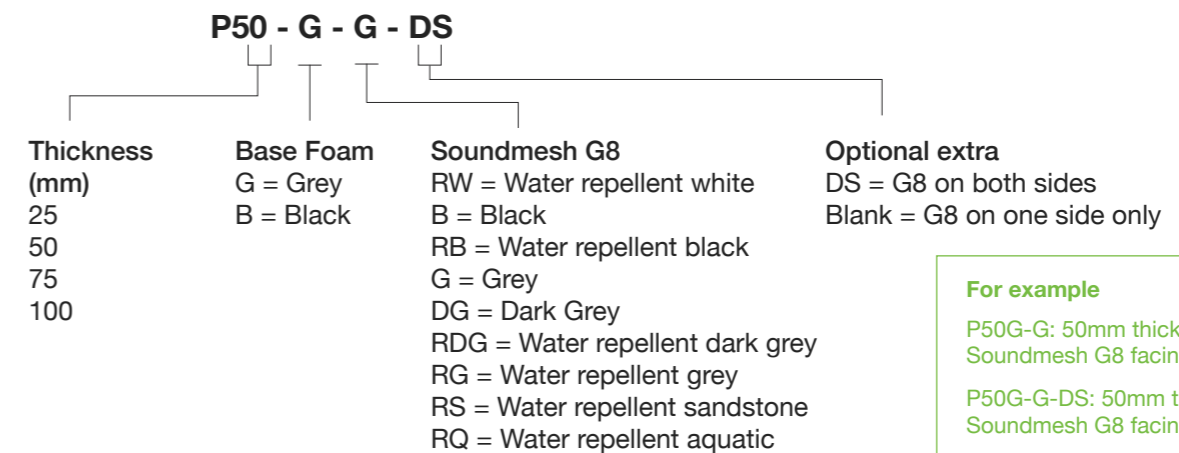
Standard thickness 25mm, 50mm, 75mm and 100mm

Product Code	Thickness	Panel Size
Megasorber P25	25mm	1.2m x 2.4m
Megasorber P50	50mm	1.2m x 2.4m
Megasorber P75	75mm	1.2m x 2.4m
Megasorber P100	100mm	1.2m x 2.4m

Note:

1) Standard products are P25, P50, P75 and P100. Other thicknesses are available, minimum order quantities do apply.

2) Product code with optional extra:



For example

P50G-G: 50mm thick, grey base with grey Soundmesh G8 facing;

P50G-G-DS: 50mm thick, grey base, grey Soundmesh G8 facing on both sides.

P50B-B: 50mm thick, black base with black Soundmesh G8 facing;

P50B-RB: 50mm thick, black base with water repellent black Soundmesh G8 facing;

3) Standard facing colours are: white, grey and black. Sandstone and aquatic are made to order.

4) The default base colour is Grey, Black base is available with a minimum order quantity of 200m². We do not recommend White Soundmesh G8 on Grey or Black base as this creates an off-white finish, if a full white finish is required we recommend Megasorber FM panels with White Soundmesh G8 on White foam base.

5) Water repellent facing is recommended for easy surface cleaning.

6) G8 facing may have a stripy appearance and creases. Hairline creases may appear on the facing when handling. The creases do not affect the acoustic performance.

7) There are colour variations between batches, whilst we take every care to minimise batch to batch variation in some instances variation may be unavoidable and will occur.

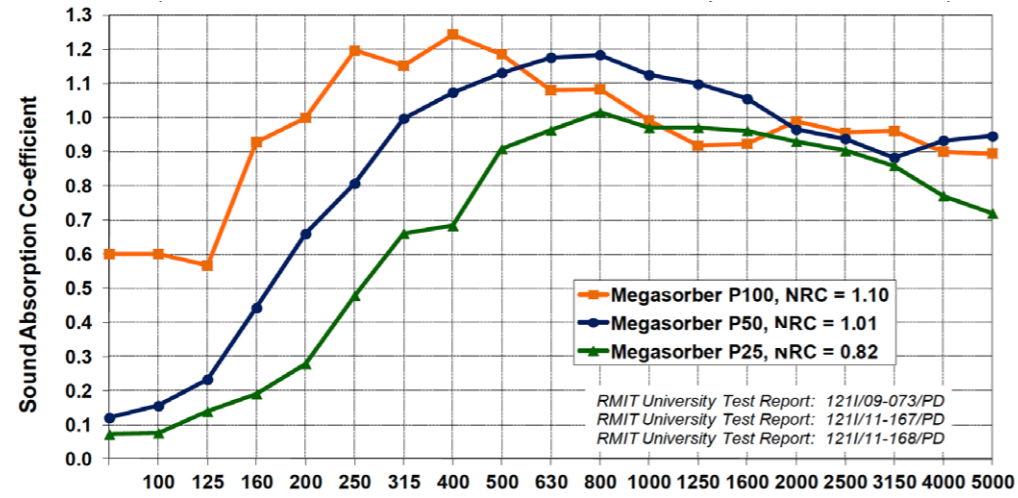
8) Thickness tolerance is ± 5% and sheet dimension tolerance is ± 1%.

9) Standard sheet size is 1.2m x 2.4m. We can cut panels to size, however, extra cutting charges apply.

10) Recommended adhesive is Megasorber A200 or Megasorber A100.

2. Acoustic Properties

Random Incidence Absorption Coefficient tested to AS ISO 354-2006: 'Acoustics: Measurement of sound absorption in a reverberation room'



AS ISO 354-2006 Measurement Results

Frequency Hz	Random Incidence Absorption Coefficient		
	Megasorber P25	Megasorber P50	Megasorber P100
100	0.08	0.16	0.60
125	0.14	0.23	0.57
160	0.19	0.44	0.93
200	0.28	0.66	1.00
250	0.48	0.81	1.20
315	0.66	1.00	1.15
400	0.68	1.07	1.24
500	0.91	1.13	1.19
630	0.96	1.18	1.08
800	1.02	1.18	1.08
1000	0.97	1.12	0.99
1250	0.97	1.10	0.92
1600	0.96	1.06	0.92
2000	0.93	0.96	0.99
2500	0.90	0.94	0.95
3150	0.86	0.88	0.96
4000	0.77	0.93	0.90
5000	0.72	0.95	0.89
NRC	0.8	1.0	1.10
a_w	0.75(M)	1.00	1.00

3. Thermal Properties

- 1) Thermal Operating Range: -40°C to + 120°C
- 2) Thermal Conductivity: 0.043W/m²K
- 3) Thermal properties - typical R values:

Product Code	Megasorber P25	Megasorber P50	Megasorber P75	Megasorber P100
Typical R Value*	0.58	1.15	1.73	2.3

* Calculated value based on thermal conductivity

4. Flammability

AS ISO 9705:2003(R2016) and AS 5637.1:2015: BCA (Building Code Australia)

Criteria	Results
Group Number	2
SMOGRARC(in m²/s² x 1000)	5.1

AS ISO 9705:2003(R2016) and C/MM2: New Zealand

Criteria	Results
Group Number	2 - S
Avg. smoke production rate (0 to 10 minutes) (in m²/S)	1.1

AS1530.3.1989: Early Fire Hazard Properties: Simultaneous Determination of Ignitability, Flame Propagation, Heat Release:

Ignitability	Spread of Flame	Heat Evolved	Smoke Developed
0	0	0	2

IMO Compliant: IMO Resolution A.653(16) AS Amended by IMO Resolution MSC 61(67): Annex1: Part 5

Parameter	Units	Test Results	IMO Requirement for bulkhead, wall & ceiling linings	IMO Requirement for floor coverings
Heat for Sustained Burning (Q _{sb})	MJm ⁻²	16.6	≥1.5	≥0.25
Critical Flux at Extinguishment (CFE)	kW/m ²	42.1	≥20	≥7
Peak Heat Release Rate (q _p)	kW	0.6	≤4	≤10
Total Heat Release (Q _t)	MJ	0.1	≤0.7	≤2
Burning Drop	N/A	N/A	Zero	≤10

5. Volatile Organic Compounds (VOC)

ASTM D5116 "Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products"

Ecospecifier Green Tag	Megasorber P Result
Total volatile compound emission rate limit ≤0.5 mg/m²/hr	Total volatile organic compound emission rate 0.05 mg/m²/hr

Megasorber P exceeds Green Tag requirements.

Related Products

Megasorber FM are lightweight inherently fire-resistant acoustic panels with fireproof sound absorbing Soundmesh G8 facing. BCA Group 1 fire classification as per AS 5637.1-2015.

Megasorber PN are thin acoustic boards designed as acoustic backing for timber slats, metal battens, perforated and slotted panels. BCA Group 2 fire classification as per AS5637.1-2015.

Megasorber Soundmesh G8 (or G8A) is a thin acoustic backing material specifically designed for perforated/slotted panels, perforated metal sheets and timber slats. It is non-combustible. BCA Group 1 fire classification as per AS 5637.1-2015.

Important notice and disclaimer.

Specifications are subject to change without notice. Please contact us for the latest version.

Patent applied for Soundmesh G8 (U.S. Patent No. 8167085, Australian Patent No. 2009206197). The data listed in this data sheet are typical or average values based on tests conducted by independent laboratories or by the manufacturer. They are indicative only of the results obtained in such tests and should not be considered as guaranteed maximums or minimums. Materials and installation methods must be tested under actual service to determine their suitability for a particular purpose.

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Megasorber is the registered trademark of
Megasorber Pty. Ltd.

Building 3, 621 Whitehorse Road
Mitcham, Victoria, Australia 3132

E info@megasorber.com

T + 61 3 9077 2918

ACN 096 454 278 / ABN 13 096 454 278

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