

# F M M

Sound Absorbing Panel



# FM

## Sound Absorbing Panel

Megasorber FM sound absorbing panel provides superior acoustic performance, is inherently fire resistant and lightweight.

The Megasorber FM panel utilises a patented noncombustible sound absorbing facing material 'Soundmesh® G8' to achieve superior sound absorption. Soundmesh® G8 facing breaks the soundwave down into smaller components, then traps and dissipates the soundwave within the foam behind it. The acoustic impedance of G8 is tuned to maximise 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 foam.

### Highest fire rating (BCA Group 1)

Megasorber FM has Building Code Australia (BCA) Group 1 fire rating as per AS5637.1-2015 and ISO 5660 Group 1 fire classification.

### Colours

Soundmesh G8 colour facing options.

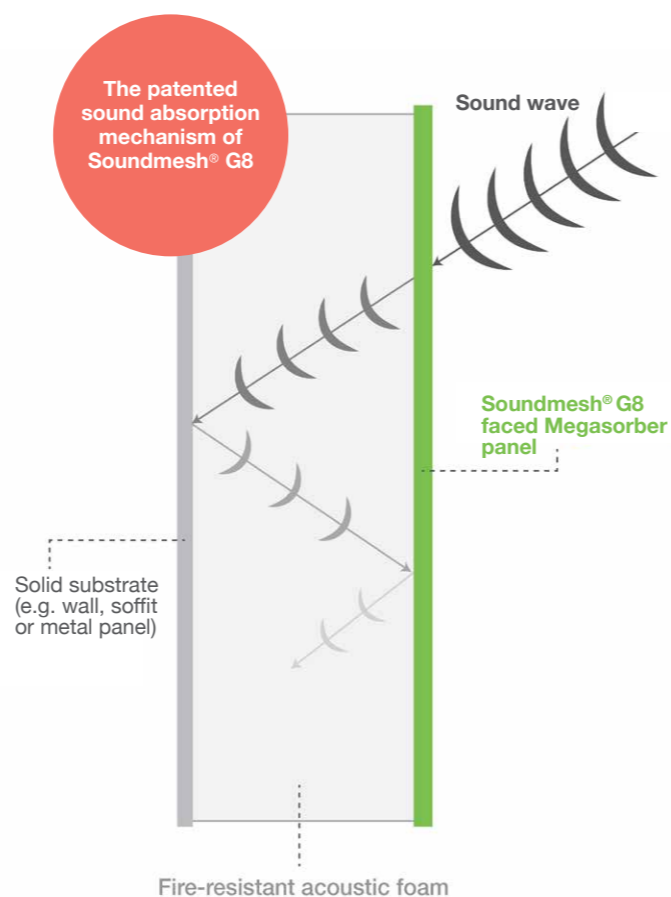


### Exceptional thermal insulation

Megasorber FM provides exceptional thermal insulation, and it is one of the most effective lightweight thermal insulation materials.

### Easy to clean


Any dirt marks or finger marks on the facing can be easily removed with Megasorber Clean M8 cleaning blocks. A water repellent Soundmesh G8 is also available, making it ideal for applications where the product could be exposed to the elements.



# superior acoustic performance

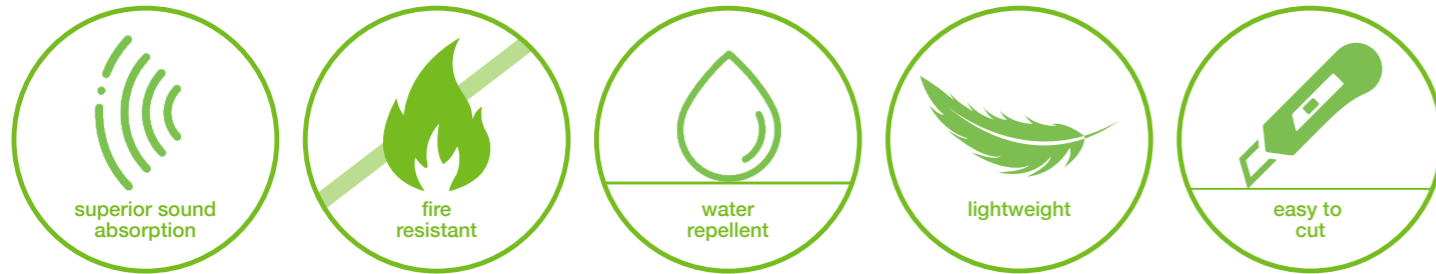
Megasorber FM50  
Australian National University (ANU) Aquatic Centre  
Walls and ceiling; direct-fix





**stunning 3D  
effect using  
FM25, FM50 and  
FM100 panels**

# Key Features



Superior sound absorption using patented technology.

Inherently fire-resistant sound absorbing panel.

AS 5637.1 BCA Group 1 fire classification.

ISO 5660 Group 1 fire classification.

Direct-fix to concrete soffits to provide fast acoustic and thermal insulation.

Light weight.

Water repellent facing (optional).

Hydrolysis resistant.

Easy to cut and install.

Easy to clean facing: dirt and dust can be easily removed with Clean M8 block.

Excellent heat and ageing resistant properties.

# Applications

## Reverberation or echo noise reduction for:

Sports stadiums, multipurpose halls, school halls.

Aquatic centres.

Music rooms, recording studios, home theatres.

Call centres, commercial and office buildings.

Restaurants, bars and clubs.

# Technical Specifications

## 1. Product Codes

Standard thickness 25mm, 50mm, 100mm

| Product Code     | Thickness | Panel Size    |
|------------------|-----------|---------------|
| Megasorber FM25  | 25mm      | 1.2m x 2.4m   |
| Megasorber FM50  | 50mm      | 1.2m x 2.4m   |
| Megasorber FM100 | 100mm     | 1.15m x 2.35m |

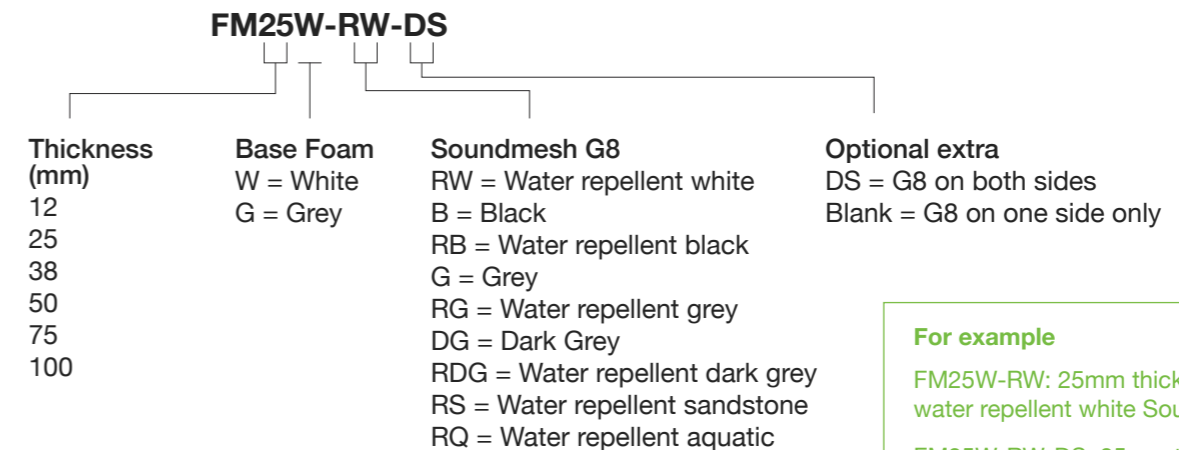
Other thickness available: (minimum order quantity applies) 12mm, 38mm & 75mm

### Note:

1) Base foam is either white or light-grey;

2) Standard facing colours are: white, grey and black; Aquatic, Dark Grey and Sandstone are made to order. We offer custom cutting to size, please note that cutting charges will apply. Prices will be quoted on application.

3) Product code with optional extra:



### For example

FM25W-RW: 25mm thick, white base with water repellent white Soundmesh G8 facing;

FM25W-RW-DS: 25mm thick, white base with water repellent white Soundmesh G8 facing on both sides.

4) 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.

5) 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.

6) Dimensional change will occur in the FM foam substrate with change in relative humidity and temperature, this may cause creasing on the Soundmesh G8 facing. The creases do not affect the acoustic performance.

7) Thickness tolerance is  $\pm 5\%$  and sheet dimension tolerance is  $\pm 1\%$ .

8) Standard sheet size is 1.2m x 2.4m. Other sheet sizes available: 1200mm x 1200mm and 1200mm x 600mm (1195mm x 595mm if packed in boxes). We can cut panels to size, however, extra cutting charges apply.

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

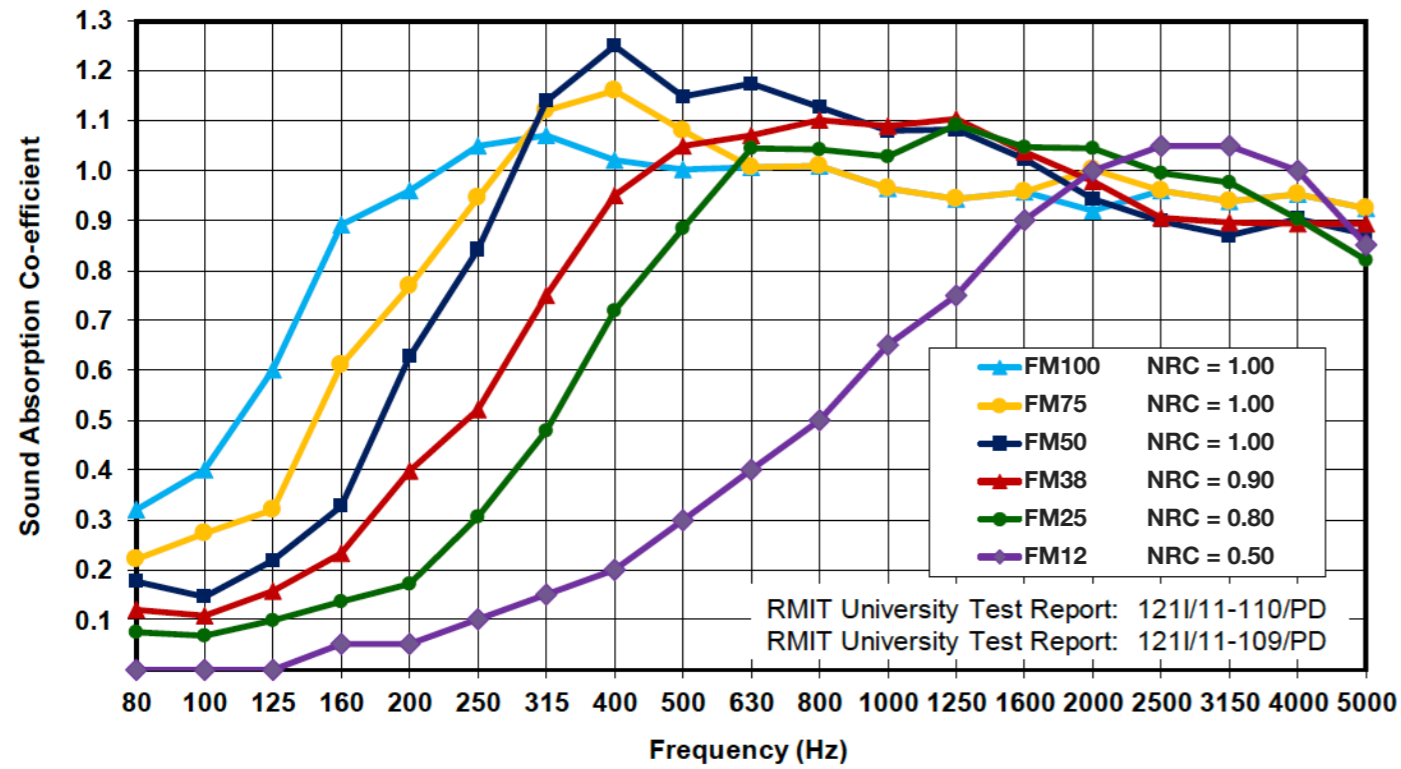
10) Recommended adhesive is Megasorber A200 or Megasorber A100.

11) Clean surface with Megasorber Clean M8 block.

## 2. Acoustic Properties

Typical results when tested in a reverberation room:

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            | Random Incidence Absorption Coefficient |                 |             |             |             |             |
|----------------------|---|-----------------|-------------|-------------|-------------|-------------|
| Hz                   | FM12                                    | FM25            | FM38        | FM50        | FM75        | FM100       |
| 100                  | 0.00                                    | 0.07            | 0.11        | 0.15        | 0.27        | 0.40        |
| 125                  | 0.00                                    | 0.1             | 0.16        | 0.22        | 0.32        | 0.60        |
| 160                  | 0.05                                    | 0.14            | 0.23        | 0.33        | 0.61        | 0.89        |
| 200                  | 0.05                                    | 0.17            | 0.40        | 0.63        | 0.77        | 0.96        |
| 250                  | 0.10                                    | 0.31            | 0.52        | 0.84        | 0.95        | 1.05        |
| 315                  | 0.15                                    | 0.48            | 0.75        | 1.14        | 1.12        | 1.07        |
| 400                  | 0.20                                    | 0.72            | 0.95        | 1.25        | 1.16        | 1.02        |
| 500                  | 0.30                                    | 0.88            | 1.05        | 1.15        | 1.08        | 1.00        |
| 630                  | 0.40                                    | 1.04            | 1.07        | 1.17        | 1.01        | 1.01        |
| 800                  | 0.50                                    | 1.04            | 1.10        | 1.13        | 1.01        | 1.01        |
| 1000                 | 0.65                                    | 1.03            | 1.09        | 1.08        | 0.96        | 0.96        |
| 1250                 | 0.75                                    | 1.09            | 1.10        | 1.08        | 0.94        | 0.94        |
| 1600                 | 0.90                                    | 1.05            | 1.04        | 1.02        | 0.96        | 0.96        |
| 2000                 | 1.00                                    | 1.04            | 0.98        | 0.94        | 1.00        | 0.92        |
| 2500                 | 1.05                                    | 0.99            | 0.91        | 0.9         | 0.96        | 0.96        |
| 3150                 | 1.05                                    | 0.98            | 0.90        | 0.87        | 0.94        | 0.94        |
| 4000                 | 1.00                                    | 0.9             | 0.89        | 0.9         | 0.95        | 0.95        |
| 5000                 | 0.85                                    | 0.82            | 0.89        | 0.87        | 0.92        | 0.92        |
| <b>NRC</b>           | <b>0.5</b>                              | <b>0.8</b>      | <b>0.90</b> | <b>1.00</b> | <b>1.00</b> | <b>1.00</b> |
| <b>a<sub>w</sub></b> | <b>0.40(H)</b>                          | <b>0.60(MH)</b> | <b>0.90</b> | <b>1.00</b> | <b>1.00</b> | <b>1.00</b> |

## 3. Physical Properties

- 1) Base foam colour: White or light grey;
- 2) Density, weight and thermal insulation (R value) properties

| Product Code                         | FM12 | FM25 | FM38 | FM50 | FM75 | FM100 |
|--------------------------------------|------|------|------|------|------|-------|
| Nominal density (kg/m <sup>3</sup> ) | 25   | 16   | 13   | 12   | 11   | 10    |
| Nominal weight (kg/m <sup>2</sup> )  | 0.30 | 0.40 | 0.50 | 0.60 | 0.80 | 1.0   |
| R value*                             | 0.35 | 0.74 | 1.12 | 1.47 | 2.21 | 2.94  |

\* Calculated value based on thermal conductivity @ 15°C

## 4. Flammability

- 1) AS 5637.1 - 2015 Determination of fire hazard properties:

| Product Group Number Classification | Average Specific Extinction Area |
|-------------------------------------|----------------------------------|
| Group 1                             | 98.3 m <sup>2</sup> /kg          |

- 2) ISO5660.1-2015: Reaction to Fire Tests - Heat Release Smoke Production and Mass Loss Rates. Group 1 Classification.

- 3) 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            | 4               |

- 4) BS 476-6:1989+A1:2009 Fire tests on building materials and structures – Fire propagation of products:

| Fire propagation index, I | Sub-index, i1 | Sub-index, i2 | Sub-index, i3 |
|---------------------------|---------------|---------------|---------------|
| 7.4                       | 5.3           | 2.1           | 0.1           |

- 5) BS 476-7:1997 Fire tests on building materials and structures – Surface spread of flame of products Classification: Class One.

- 6) EN45545-2:2013+A1:2015 Railway Applications – Fire protection on railway vehicles Part 2: Requirements for fire behaviour of materials and components. Meets the requirements of R1 for HL1, HL2, HL3 Hazard Level Classification.

## 5. Volatile Organic Compounds (VOC)

ASTM D5116 "Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/ Products": 0.016 mg/m<sup>2</sup>/hr (well below GreenTag requirement limit of 0.5mg/m<sup>2</sup>/hr).

### Related Products

**Megasorber P** are acoustic polyester panels with a fireproof sound absorbing Soundmesh G8 facing. BCA Group 2 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.

[megasorber.com](http://megasorber.com)





**water repellent panels perfect for  
noisy leisure centres**

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