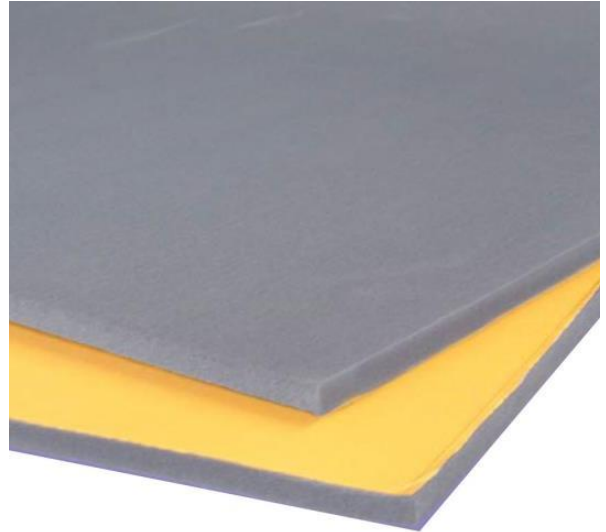


# Siderise 'M' Series acoustic foam

A light weight, flame retardant open cell melamine foam offering excellent thermal and sound absorbing qualities



## Application

Siderise 'M' series acoustic foam is used in many varied applications and industries including construction, marine, automotive, HVAC and OEM.

Some applications use the product as a component sound absorbing or resilient spacing layer within a bespoke composite material.

Common applications include internal lining of ductwork and ventilation equipment, spatial absorbers, absorber panel infills, absorption linings in marine craft, automotive vehicles, generators, compressors, process plant and electrical equipment.

The material is normally adhered to the background surface using a separate adhesive or by means of the optional pressure-sensitive adhesive backing.

Additionally, the product can be mechanically fixed using large headed fixings or spreader washers. Our insulation support pins, and non-return washers are suitable fixings.

Please contact our technical team for advice on suitable adhesives and mechanical fixings.

## Product Description

Siderise 'M' series acoustic foam is light-weight melamine foam with a fine open cell structure offering excellent sound absorbing qualities.

Additional benefits offered by the product include: enhanced flame retardance, excellent thermal insulation properties and an elevated operating temperature.

The product is available with a pressure-sensitive adhesive backing and a wide variety of applied surface facings.

Additionally, the product can be supplied in composite form with a range of mass barriers and damping sheets.

## Acoustic Performance

The product's acoustic performance is tested in accordance with BS EN 20354:1993, ISO 354. Octave band Sound Absorption Coefficients for various grades of the product are given below in Table 1.

**Table 1 – Acoustic performance**

| Product | Thickness (mm) | Sound Absorption Coefficients |       |       |      |      |      | $\alpha_w$ | NRC  | Absorption Class |
|---------|----------------|-------------------------------|-------|-------|------|------|------|------------|------|------------------|
|         |                | 125Hz                         | 250Hz | 500Hz | 1kHz | 2kHz | 4kHz |            |      |                  |
| M006    | 6mm            | 0.05                          | 0.05  | 0.15  | 0.35 | 0.50 | 0.65 | 0.25       | 0.20 | E                |
| M012    | 12mm           | 0.05                          | 0.10  | 0.35  | 0.55 | 0.70 | 0.85 | 0.30       | 0.35 | D                |
| M025    | 25mm           | 0.10                          | 0.25  | 0.60  | 0.80 | 0.95 | 1.00 | 0.50       | 0.60 | D                |
| M050    | 50mm           | 0.25                          | 0.70  | 1.00  | 1.00 | 1.00 | 1.00 | 0.80       | 0.90 | B                |

## Reaction to Fire / Flammability Performance

**Table 2 - Reaction to Fire / Flammability performance**

| Property     | Test Method       | Result                                           |
|--------------|-------------------|--------------------------------------------------|
| Flammability | BS 476 Part 6 & 7 | 25mm – Class 0<br>50mm – Class 1                 |
| Flammability | EN13501-1         | 5mm to 20mm – Class B<br>21mm to 200mm – Class C |
| Flammability | EN45545-2         | ≥5mm – R1, HL2                                   |
| Flammability | FMVSS 302         | Compliant (0mm/min)                              |
| Flammability | UL94              | V-0 (vertical) & HF1 (Horizontal)                |

## Technical specification

|                                                                   |                                                                                                                         |                |                 |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|
| <b>Form Supplied</b>                                              | Standard sheet size: 2500 x 1250<br>Other forms: Linear 3D sections and die-cut parts                                   |                |                 |
| <b>Standard thicknesses (mm)</b>                                  | 6, 10, 12, 15, 20, 25, 35, 40, 45, 50, 75, 100<br>(can be slit from block to any thickness, 3mm to max block thickness) |                |                 |
| <b>Colour</b>                                                     | Grey                                                                                                                    |                |                 |
| <b>Density (EN ISO 845)</b>                                       | 9 kg/m <sup>3</sup> ±1.5                                                                                                |                |                 |
| <b>Compressive Strength (EN ISO 3386-1)</b>                       | >9 kPa                                                                                                                  |                |                 |
| <b>Tensile Strength (ISO 1798)</b>                                | >130 kPa                                                                                                                |                |                 |
| <b>Elongation at break (ISO 1798)</b>                             | >21%                                                                                                                    |                |                 |
| <b>Thermal conductivity (EN 12667) (10°C)</b>                     | 0.035 W/mK                                                                                                              |                |                 |
| <b>Thermal resistance (EN ISO 2440, defined by EN ISO 3386-1)</b> | 240° C                                                                                                                  |                |                 |
| <b>Maximum application temp (ISO 3386-1 defined)</b>              | 1,000h: 220° C                                                                                                          | 5,000h: 200° C | 20,000h: 180° C |
| <b>Fire resistance</b>                                            | None – Acoustic foam only                                                                                               |                |                 |
| <b>Reaction to Fire / Flammability performance</b>                | See Table 2                                                                                                             |                |                 |

**Products available**

The following Siderise products are available:

- Siderise 'A' series acoustic foam
- Siderise 'AW' series acoustic foam
- Siderise 'M' series acoustic foam
- Siderise 'MF' series acoustic foam
- Siderise 'MW' series acoustic foam
- Siderise 'V' series acoustic foam
- Siderise 'VE' series acoustic foam
- Siderise Lamacell thermal insulation

Contact us for further information on our CPDs

## Further information

**Technical support**

For further information please contact our technical team at the address below.

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Technical Team

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