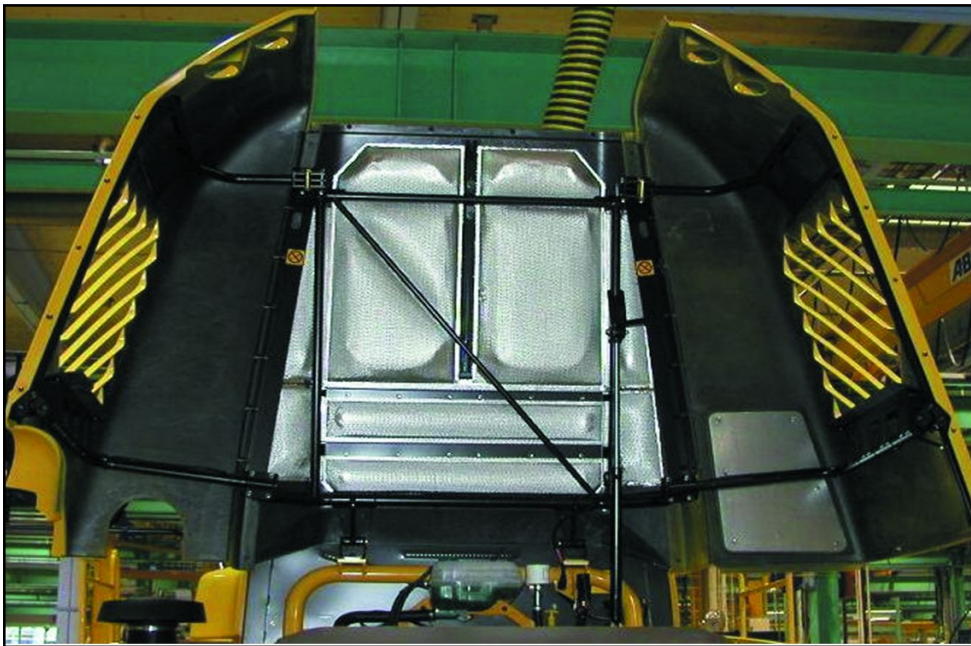


Moulded Engine Compartment Panels

Data Sheet
2007 Issue 02

Description

Moulded Engine Compartment Panels are manufactured from medium-density glass fibres blended with phenolic resins to form a pelt; lightweight polyester fibres fused together to form a blanket; or resinated cotton pelts. Each of the raw materials can be faced one or both sides with a variety of surface finishes and then moulded into complex three-dimensional shapes with a high degree of surface definition.



Panels are individually designed to meet clients' physical and performance requirements and generally incorporate high levels of acoustic absorption, an integral barrier layer to reduce sound transmission and acoustically transparent facings to resist the ingress of oil, water and other fluids.

Colour

Base Materials

| | | |
|----------------------------------|---|-----------------|
| Glass fibre and resinated cotton | - | Greenish yellow |
| Polyester fibre | - | White |

Surface Finish

Black non-woven E-Film E, black non-woven E-Film F or silver CoustiFoil perforated aluminium.

Application

Moulded Engine Compartment Panels are used extensively in buses, coaches, earthmoving equipment, agricultural vehicles, cars, power trains and other motor vehicles to acoustically treat bonnets, bulkheads, access doors, transmission tunnels and floors.

Design, Prototype and Testing

Highly qualified technical engineering staff are available to work with vehicle stylists and manufacturing design teams to take projects through from original concept and on to prototype, testing and volume production. Technical advice is available throughout the process to ensure overall performance objectives are achieved. Hodgson & Hodgson is able to interface with most popular CAD Modelling Packages via e-mail or through more traditional means.

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Operating Temperature

Base materials are dimensionally stable up to the following temperatures:

| | | |
|------------------|---|-------|
| Glass fibre | - | 230°C |
| Resinated cotton | - | 180°C |
| Polyester fibre | - | 90°C |

Facing materials will withstand the following temperatures:

| | | |
|---------------------------------|---|-------|
| E-Film E and E-Film F | - | 230°C |
| CoustiFoil perforated aluminium | - | 650°C |

Fire Performance

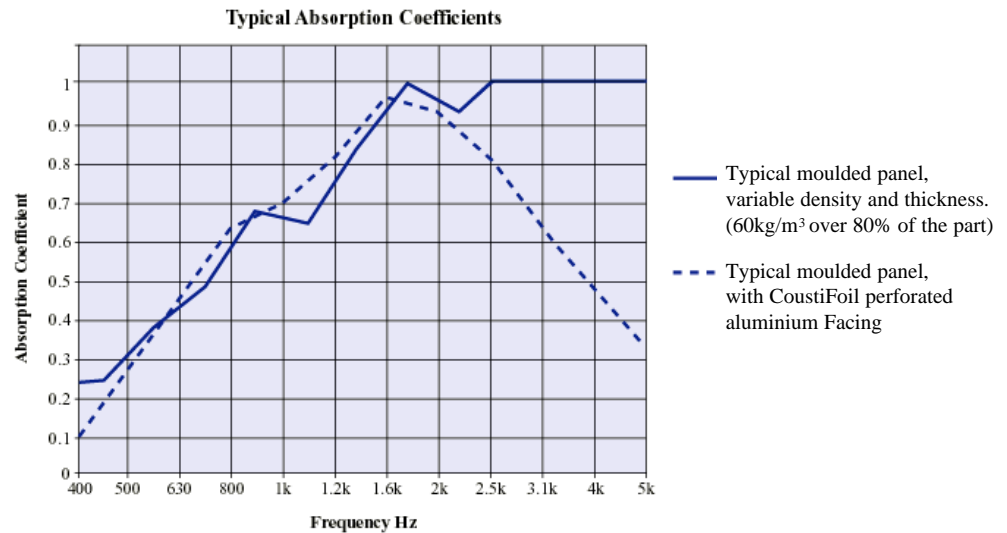
Moulded Engine Compartment Panels meet the requirements of FMVSS 302 / ISO3795 (All Grades). Panels faced with E-Film F meet the requirements of UL94-V0

Thermal Conductivity

| | | |
|-----------------|---|-------------------|
| Polyester fibre | - | 0.037 W/mK @ 10°C |
| Glass fibre | - | 0.040 W/mK @ 10°C |

Acoustic Performance

Acoustic performance varies depending on the thickness and density of base material. Detailed below are sound absorption characteristics for a typical moulded panel.



Dimensions and Density

| Base Material | Length mm | *Width mm | **Thickness mm | ***Density kg/m ³ |
|------------------|------------|------------|----------------|------------------------------|
| Glass Fibre | Up to 2500 | Up to 1200 | From 3 to 25 | From 40 to 630 |
| Resinated Cotton | Up to 2500 | Up to 1200 | From 3 to 50 | From 40 to 500 |
| Polyester Fibre | Up to 2100 | Up to 1300 | From 3 to 50 | From 30 to 200 |

* Subject to shape and density

** Subject to size, shape and thickness

*** Subject to overall size and shape

Permanence

Moulded Engine Compartment Panels are strong, durable, dimensionally stable and shock resistant. The fibres are odourless and do not sustain micro-organisms, fungi or bacteria. The complete moulding is water repellent when faced with E-Film E.

Chemical Resistance

Moulded Engine Compartment Panels faced with E-Film E and E-Film F are resistant to acids, salts and hydrocarbons. Panels faced with CoustiFoil are resistant to salts and hydrocarbons, however the facing could be adversely affected by prolonged exposure to acids.

For Further Information

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