

Microtherm® Hydrophobic Panel

Clean, waterproof high temperature insulation

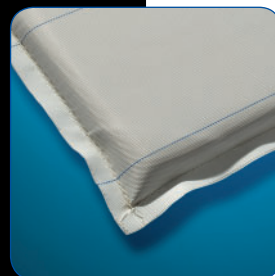
Microtherm® Hydrophobic Panels are water repellent high temperature insulation panels. Microporous insulation provides a thermal conductivity even lower than that of still air.

Properties

- Opacified blend of filament reinforced silica
- High temperature microporous insulation specially treated to repel water during installation.
- Continuous operation at temperatures up to 1000 °C (1832 °F)
- Environmentally friendly with no respirable fibres
- Environmentally friendly with no known health hazards
- Clean to use
- Simple to cut and shape.

Typical applications

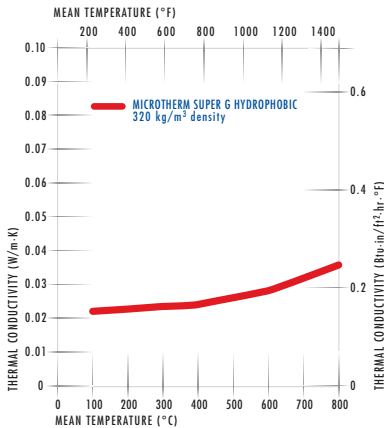
- Water repellent insulation
- Steel making
- Marine insulation applications
- All applications where water may be present.



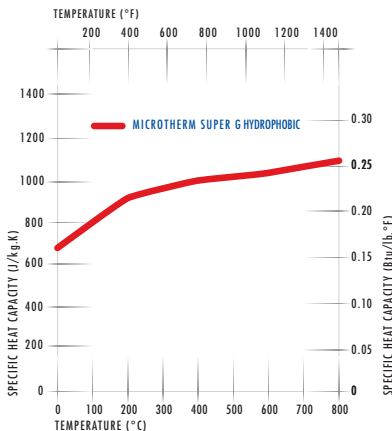
Microtherm® Hydrophobic Panel

TYPICAL PRODUCT CHARACTERISTICS

Thermal Conductivity



Specific Heat Capacity



Size Availability

Panel dimensions are normally specified by customer. A range of standard panel sizes available from stock. Thickness normally in range of 3 - 30 mm in 0.5 mm steps (1/8" to 1 1/8"). Greater thickness can be made but it is often better to use the alternative of two thinner layers.

Performance

Maximum temperature limits Microtherm® Super G Hydrophobic - 1000 °C (1832 °F) for long term exposure. Thermal conductivity (ISO 8302, ASTM C177) - Microtherm® Super G Hydrophobic @ 320 kg/m³ density.

0.0221 W/m.K at 100 °C mean	0.0260 W/m.K at 500 °C mean
0.0222 W/m.K at 200 °C mean	0.0281 W/m.K at 600 °C mean
0.0230 W/m.K at 300 °C mean	0.0343 W/m.K at 800 °C mean
0.0244 W/m.K at 400 °C mean	

Specific heat capacity 680 J/kg.K at 0 °C
 920 J/kg.K at 200 °C
 1000 J/kg.K at 400 °C
 1040 J/kg.K at 600 °C
 1080 J/kg.K at 800 °C

Compressive Modulus (ASTM C165) @ 320 kg/m³ density - 2.1 MPa
 Resistance at 10% deformation (ASTM C165) @ 320 kg/m³ density - 0.2 MPa

Manufacturing Tolerances

Tolerance on panel length dimension.
 ± 3 mm (1/8") for panel lengths ≤ 1.6 m (5' 3").
 ± 6 mm (1/4") for panel lengths > 1.6 m (5' 3").
 ± 6 mm (1/4") for circular panels.

Tolerance on panel width dimension.
 ± 3 mm (1/8") for panel widths < 1.6 m (5' 3").
 ± 6 mm (1/4") for circular panels.

Tolerance on panel thickness.
 ± 0.5 mm (0.02") for panel thickness ≤ 10 mm (≤ 3/8")
 ± 0.8 mm (0.03") for panel thickness 10.1 - 30 mm (3/8" - 1 1/8")
 ± 1.5 mm (0.06") for panel thickness 30.1 - 50 mm (1 1/8" - 2.0")
 ± 2 mm (0.08") for panel thickness > 50 mm (> 2.0")

Density

Typically 260 - 350 kg/m³.

Standard finish styles available

Woven E glass cloth on both faces with selvedge.

Typical Values

Performance values quoted here are for general guidance.

For more precise information and assistance with design please contact our materials specialists.

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