

Microtherm® Standard Panel

Microtherm® Standard Panels are high performance microporous insulation panels in a glass cloth outer envelope. The insulation is an opacified blend of filament reinforced silica.

Properties

- Clean panels of high temperature thermal insulation
- Lowest thermal conductivity
- Non combustible insulation
- Continuous operation at temperatures up to 1000 °C (1832 °F)
- Simple to cut and shape
- Clean and environmentally safe
- Contains no respirable fibres.



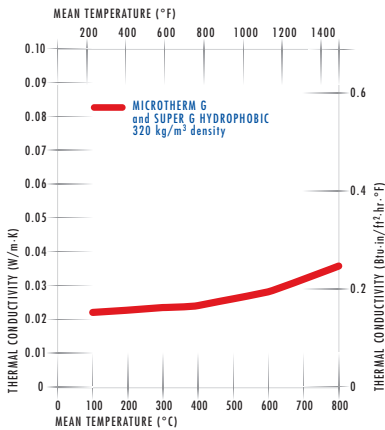
Typical applications

- Night storage heating
- Electrical appliances
- Furnaces
- Document storage cabinets.

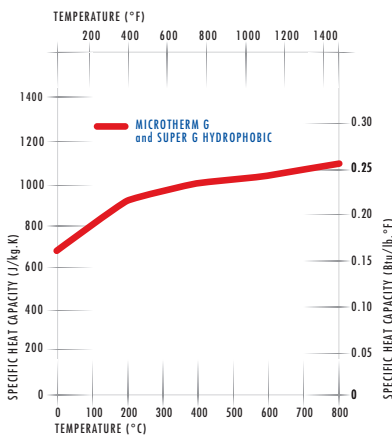
Microtherm® Standard Panel

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 ($\frac{3}{8}$ " to $1\frac{1}{8}$ "). Larger thickness can be made but it is often better to use the alternative of two thinner layers.

Performance

Maximum temperature limits Microtherm® Super G - 1000 °C (1832 °F) for long term exposure. Thermal conductivity (ISO 8302, ASTM C177) - Microtherm® Super G @ 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	1040 J/kg.K at 600 °C
920 J/kg.K at 200 °C	1080 J/kg.K at 800 °C
1000 J/kg.K at 400 °C	

Compressive Modulus (ASTM C165) @ 250 kg/m³ density - 1.6 MPa

Resistance at 10% deformation (ASTM C165) @ 250 kg/m³ density - 0.16 MPa

Manufacturing Tolerances

Tolerance on panel length dimension

- ± 3 mm ($\frac{1}{8}$ " for panel lengths ≤ 1.6 m (5' 3"))
- ± 6 mm ($\frac{1}{4}$ " for panel lengths > 1.6 m (5' 3"))
- ± 6 mm ($\frac{1}{4}$ " for circular panels)

Tolerance on panel width dimension

- ± 3 mm ($\frac{1}{8}$ " for panel widths < 1.6 m (5' 3"))
- ± 6 mm ($\frac{1}{4}$ " for circular panels)

Tolerance on panel thickness

- ± 0.5 mm (0.02") for panel thickness ≤ 10 mm (≤ $\frac{3}{8}$ ")
- ± 0.8 mm (0.03") for panel thickness 10.1 - 30 mm ($\frac{3}{8}$ " - $1\frac{1}{8}$ ")
- ± 1.5 mm (0.06") for panel thickness 30.1 - 50 mm ($1\frac{1}{8}$ " - 2.0)
- ± 2 mm (0.08") for panel thickness > 50 mm (> 2.0")

Density

Density of the panel core - 200 - 400 kg/m³ dependent on panel grade, area, and thickness.

Standard finish styles available

Woven E glass cloth on both faces with selvage.

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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