**Microtherm® Thin sheet**

*Ultra thin high temperature insulation*

**Microtherm® Thin Sheet** is Microtherm® Insulation manufactured in a standard thickness of 3 mm although thinner versions may be available on request. It can be rolled around a cylindrical object and it is suitable for punching out small shaped profiles for applications such as thermal protection to electronic components.

**Properties**
- Formulation based on pyrogenic silica with a mineral oxide opacifier and E-glass filament reinforcement
- Ultra thin microporous insulation
  - Can be formed by gentle rolling into curved shape
  - Capable of continuous exposure to temperatures up to 1000 °C (1832 °F)
- Environmentally friendly
- Free of harmful respirable fibres.

**Typical applications**
- Ultra thin high temperature protection
- Heat shields for delicate electronics
- Missile guidance systems heat shielding
- Intelligent armaments.

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Microtherm® Thin Sheet

TYPICAL PRODUCT CHARACTERISTICS

Size Availability
Standard thickness 3 mm (/&”) available in a maximum sheet size of 450 mm x 450 mm (17 3/8" x 17 3/8").
Other thicknesses available on request.
Thinner sheets may only be available to smaller overall dimensions to maintain handleability.

Performance
Maximum temperature limits Microtherm® Thin Sheet Insulation - 1000 °C (1832 °F) for long term exposure
Thermal conductivity - Microtherm® Thin Sheet Insulation @ 320 kg/m² density
0.0225 W/m.K at 100 °C mean
0.0233 W/m.K at 200 °C mean
0.0248 W/m.K at 300 °C mean
0.0271 W/m.K at 400 °C mean
0.0300 W/m.K at 500 °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

Manufacturing Tolerances
Tolerance on thickness ± 0.25 mm (± 0.01").
(The above given inch dimensions are indicative only and not claimed to be exact equivalents)

Density
Nominally 320 - 450 kg/m².

Standard finish styles available
Plain uncoated block.

Typical Values
Performance values quoted here are for general guidance.
For more precise information and assistance with design please contact our materials specialists.

The information contained in this datasheet/brochure is intended to assist in designing with Microtherm products. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on this datasheet will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Microtherm products for each application. No known health hazards in normal use.

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