

## Microtherm® SlimVac Vacuum insulation panel

**Microtherm® SlimVac** panels are high performance microporous insulation covered in an impermeable polymer outer envelope which is heat sealed under vacuum to optimize the thermal performance.

The core of the SlimVac® panel insulation is a blend of filament reinforced silica and an opacifier to block the infrared radiation.

The outer envelope is an ultra low permeation barrier film that comprises multiple metalized polymer layers. Exact barrier film specification may vary according to the application.

**Microtherm® SlimVac core material** is non combustible and complies to the requirements of DIN4102. It is environmentally safe and completely recyclable.

### Properties

- Very low TC value of 4.2 mW/m.K
- High R-value (4.8 m<sup>2</sup>K/W per 20mm)
- Lightweight & thinnest insulation available.
- No need for getter material.
- Stable long term thermal performance.
- Environmentally safe, contains no respirable fibres
- Excellent resistance to compression

### Applications

- Refrigerators and freezers
- Temperature controlled packaging
- Refrigerated transport
- Building:
  - Facades elements
  - Floor and roof insulation
  - Terrace insulation
  - Doors
  - Thermal bridges
  - Cold rooms



## Microtherm® SlimVac

### TYPICAL PRODUCT CHARACTERISTICS

#### Size Availability

Microtherm® SlimVac panels are available in thicknesses from 6 mm (1/4") up to 40 mm (1 1/2") and in panel sizes up to a maximum of 1400 mm x 800 mm (approx 55 1/3" x 31 3/5") at the larger thicknesses. Please contact our Technical Service Department for further details.

#### Performance

TC value at vacuum level < 5 mbar: 4.2 mW/m.K (according to ASTM C 518 & ISO 8301) at mean temperature 10 °C (50 °F). TC value without vacuum is 21 mW/m.K at normal ambient conditions.

U-value for thickness 20 mm: 0,21 W/m²K

R-value for thickness 20 mm: 4.8 m²K/W

#### Manufacturing Tolerances

Tolerances on length & width

+3.0 /-1.0 mm (+1/8" /- 0.04") for thickness ≤ 15.0 mm (≤ 5/8").

+3.0 /-1.5 mm (+1/8" /- 1/16") for thickness 15.1 - 30.0 mm (5/8"- 1 1/4").

+4.0 /-2.0 mm (+3/16" /- 0.08") for thickness > 30.0 mm (> 1 1/4").

For alternative tolerance requirements, please contact our Technical Service Department.

(The above given inch dimensions are indicative only and not claimed to be exact equivalents.)

#### Density

Nominally 160 - 220 kg/m³ according to specification.

#### Standard finish styles available

The standard finish is "as made" with slightly rounded edges and seal flanges on all four sides.

Alternatively, Microtherm® SlimVac may be ordered with seal flanges neatly taped back and retained.

For alternative finish requirements contact our Sales Department for advice.

#### 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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