# MICROTHERM® SLIM&LIGHT

## High temperature microporous insulation panel

MICROTHERM® SLIM&LIGHT are large-sized, custom made microporous insulation panels with very good thermal properties. The panels are produced in a glass cloth outer envelope, making them clean and easy to handle. The formulation is an opacified blend of filament reinforced pyrogenic silica.

MICROTHERM® SLIM&LIGHT is the industry benchmark for EI class fire ratings with the thinnest and lightest available solutions.

| Technical data | | |
|---|---|---|
| **Standard finishing** | | Glass cloth (E-Glass)* |
| **Classification temperature** | °C | 1000 |
| **Nominal density** | kg/m³ | 260 |
| **Compressive strength** (ASTM C165) | MPa = N/mm² | 0.17 |
| **Thermal conductivity** (ISO 8302, ASTM C177) | | |
| 200 °C | W/m K | 0.023 |
| 400 °C | W/m K | 0.026 |
| 600 °C | W/m K | 0.031 |
| 800 °C | W/m K | 0.039 |
| **Specific heat capacity** | | |
| 200 °C | kJ/kg K | 0.92 |
| 400 °C | kJ/kg K | 1.00 |
| 600 °C | kJ/kg K | 1.04 |
| 800 °C | kJ/kg K | 1.08 |
| **Shrinkage** | | |
| 1-sided 12h – 1000 °C | % | < 0.5 |
| Full soak 24h – 1000 °C | % | < 6 |

* Special coverings and coatings are available on request.

## Delivery sizes

MICROTHERM® SLIM&LIGHT panels are completely custom made according to customer specifications. Please contact your regional Promat agency to request your MICROTHERM® SLIM&LIGHT sizes. Available thicknesses range from 10 mm up to 30 mm. MICROTHERM® SLIM&LIGHT panels are often used in combination with calcium silicate materials to obtain a strong and durable surface. Within a certain customer-specific design, typical thicknesses of the microporous layer are:

| | | |
|---|---|---|
| **Thickness** | | |
| Fire rating EI60 | mm | ± 12 |
| Fire rating EI90 | mm | ± 18 |
| Fire rating EI120 | mm | ± 20 |

| Production tolerances | | |
|---|---|---|
| **Length** | mm | ± 6 |
| **Width** | mm | ± 3 |
| **Thickness** | mm | ± 0.8 |

# MICROTHERM® SLIM&LIGHT

## Properties & advantages

- Very thin and lightweight
- Custom-made
- Large-sized panels to avoid joints (= thermal bridges)
- Non-combustible
- Extremely low thermal conductivity
- High thermal stability
- Clean and easy to handle
- No harmful respirable fibres
- Environmentally friendly, free of organic binders
- Resistant to most chemicals

## Application areas

Microporous insulation offers an extremely low thermal conductivity, close to the lowest theoretically possible at high temperatures. Microporous materials are the preferred choice in demanding PFP (Passive Fire Protection) systems.

### OEM

- Elevator landing doors (EI60, EI90, EI120 ratings)
- Industrial fire doors (EI60, EI90, EI120 ratings)

## Working & processing

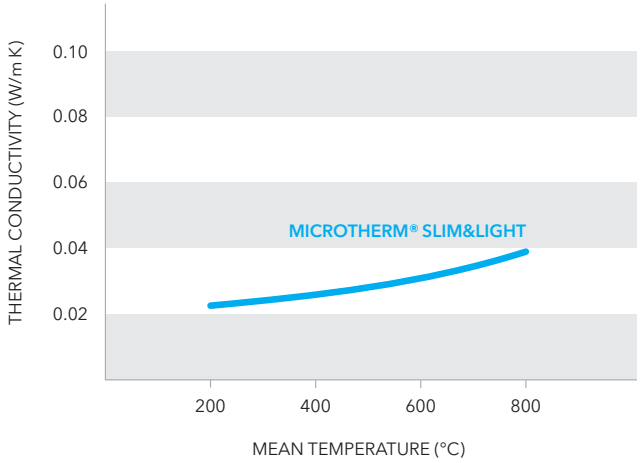
MICROTHERM® SLIM&LIGHT can be shaped easily with a simple cutter (see handling and shaping techniques). The panels can be fixed in place with glue or by mechanical means such as anchors, pins and clips. They can also be fitted between the anchors.

## Drivers for thin & lightweight insulation

Our years of experience in PFP materials for elevator landing doors and industrial fire doors, and the close collaboration with our customers, have taught us why MICROTHERM® SLIM&LIGHT is successful. The reduction of the insulation thickness and total weight leads to several benefits:

- Answer to EN 81-58 requirements
- Lightweight systems
- Large dimensions > single layer installation
- Reduced TCO (Total Cost of Ownership)

## Thermal conductivity



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