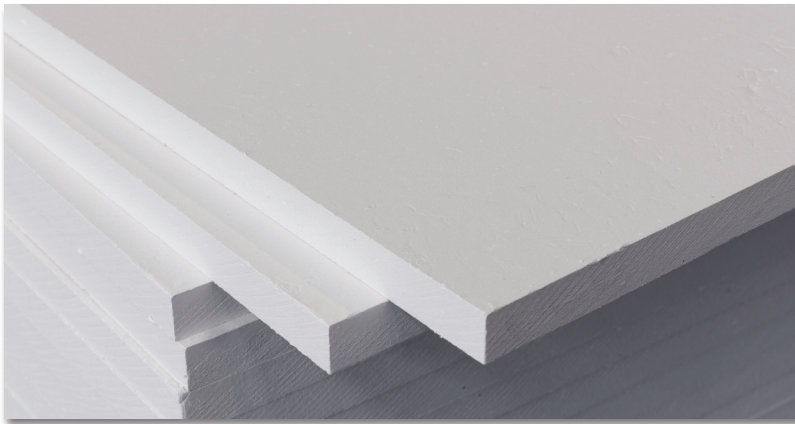


## MONOLUX®



### Structural calcium silicates

MONOLUX® materials are rigid insulation boards with a low thermal conductivity. They are specifically formulated without asbestos and mineral fibres.

MONOLUX® products have low shrinkage and high strength and therefore provide effective and stable insulation solutions for industrial applications.

MONOLUX® boards combine high mechanical strength, good thermal and electric insulation at high temperatures.

Technical data		
Colour		white/beige
Building material class	EN 13501	A1, non-combustible
Classification temperature	°C	1000
Nominal density	kg/m <sup>3</sup>	950
Cold compressive strength	N/mm <sup>2</sup>	> 27
Bending strength	N/mm <sup>2</sup>	7
Shrinkage		
1000 °C - 24h	%	0.8
Breakdown voltage and electric strength EN 60243-1	kV/mm	4.2
High voltage arc resistance - Level 40, 40mA EN 61621	seconds	300
Volume resistance DIN EN 62631-3-1		
25 °C	Ω cm	4.3x10 <sup>8</sup>
600 °C	Ω cm	6.5x10 <sup>7</sup>
Surface resistance EN 62631 3-2		
25 °C	Ω cm	8.1x10 <sup>8</sup>
600 °C	Ω cm	7.5x10 <sup>7</sup>
Thermal conductivity		
200 °C	W/m K	0.20
400 °C	W/m K	0.21
600 °C	W/m K	0.22
800 °C	W/m K	0.23
Specific heat capacity	kJ/kg K	1.03
Reversible thermal expansion		
20-800 °C, after 2 <sup>nd</sup> heating	K <sup>-1</sup>	7.3x10 <sup>-6</sup>
Chemical analysis		
SiO <sub>2</sub>	%	49
CaO	%	48
Fe <sub>2</sub> O <sub>3</sub>	%	1.2
LOI	%	12
Alkalinity	pH value	approx. 10
Moisture content (air-dry)	%	< 5

Delivery sizes		
Length	mm	2500
Width	mm	1200
Thickness	mm	12.7 / 25 / 30 / 40 / 50 / 60

Production tolerances		
Length and width	mm	± 1
Thickness	mm	± 0.4

# MONOLUX®

### Properties & advantages

- Low thermal conductivity
- High mechanical strength
- High electrical and arc resistance
- Chemical resistance
- Moisture resistance
- Excellent machinability to close tolerances
- Tough and durable
- Dust free surface
- Asbestos free

### Application areas

#### OIL AND GAS

- Load bearing pipe supports
- Heat shields

#### HEAVY INDUSTRY

- Structural thermal separations
- Furnace bottom boards
- Dryer walls



### Working & processing

MONOLUX® products can be accurately machined with special processing machinery and appropriate tools. The fine material structure allows the production of precision machined parts.

To avoid water absorption and to protect against aggressive atmospheres, Promat®-Impregnations are available.

When cutting to size, the maximum workplace concentration values for inhalable dust must be observed. Dust extraction is recommended. See product safety information sheet.

### Thermal conductivity

