

Promat

PROMASIL® -1000L and -1100 Super

High performance thermal insulation

PROMASIL® -1000L and -1100 Super are large size lightweight insulating boards with very good thermal properties. Their homogeneous and stable matrix structure guarantees excellent mechanical and thermal characteristics



WIN GROUP



PROMASIL® -1000L and -1100 SUPER are large size, lightweight insulating boards with very good thermal properties. Their homogeneous and stable mineral matrix structure guarantees excellent mechanical and thermal characteristics.

PROMASIL® -1000L boards are mechanically strong and vibration proof and have a good thermal stability up to 1000 °C.

PROMASIL® -1100 SUPER offers unique solutions where conventional light weight calcium silicate products cannot.

PROMASIL® -1100 SUPER is the result of combining our PROMAXON® technology, an exclusively engineered mineral matrix structure that brings controlled smaller pore size in the calcium silicate matrix, together with introducing selected opacifiers in the mineral composition to further lower the thermal conductivity.

Properties & advantages

- Extremely low thermal conductivity
- Low shrinkage
- Low thermal mass, lightweight
- Good mechanical strength
- High thermal stability
- Large size format
- Good workability



Typical applications

PROMASIL® materials are used in various industrial applications as thermal back-up insulation in a refractory lining.

- Electrolytic reduction cells
- Fired heaters in oil and gas industry
- All types of kilns and furnaces
- Apparatus construction
- Domestic appliances
- Glass melting and refining
- Fuel cells
- Load bearing pipe clamps
- Domestic fireplaces

Working & processing

PROMASIL® -1100 SUPER allows extensive machining by using woodworking and CNC machines with hard metal tipped tools in order to produce machined cut sections and special shapes.

When cutting to size, the maximum recommended workplace concentration for dust generation must be observed. We advise local dust extraction in the cutting zone. Please ask your local sales representative for the MSDS prior to machining.

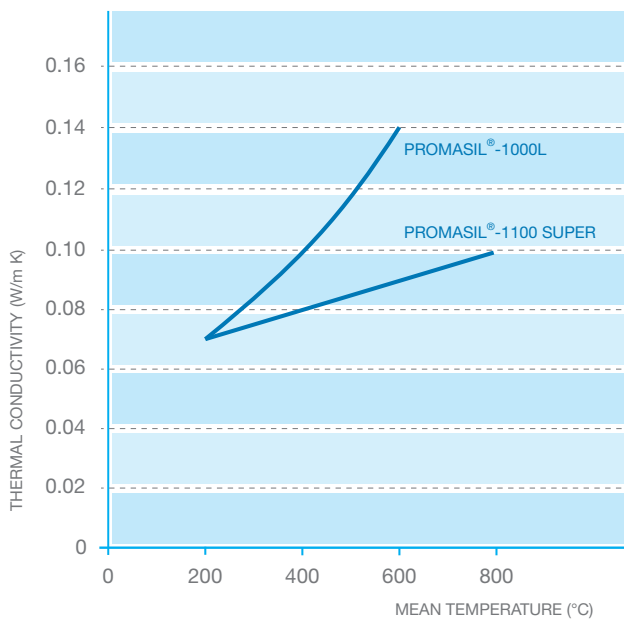




Technical data

Brand		PROMASIL®	
Grade		-1000L	-1100 SUPER
Colour		White	
Classification temperature	°C	1000	1050
Bulk density	kg/m ³	300	300
Thermal expansion @ 400 °C	m/m K	6.0x10 ⁻⁶	5.4x10 ⁻⁶
Bending strength (longitudinal direction)	N/mm ²	1.0	1.5
Cold compressive strength (perpendicular direction)	N/mm ²	2.5	2.5
Linear shrinkage	@ 1000 °C, 12 h	0.5	-
	@ 1050 °C, 12 h	-	1.5
Thermal conductivity	200 °C W/m K	0.08	0.07
	400 °C W/m K	0.10	0.08
	600 °C W/m K	0.13	0.09
	800 °C W/m K	0.16	0.10
Specific heat capacity @ 400 °C	kJ/kg K	1.02	1.03

Thermal conductivity graph



Product dimensions & standard sizes

	Length [mm]	Width [mm]	Thickness [mm]
PROMASIL®-1000L	2500	1200	25-30-40-50-60
PROMASIL®-1100 SUPER	2500	1200	25-30-40-50-60
	1250	1200	25-30-40-50-60
	1250	600	25-30-40-50-60

Other sizes are available on request.

Shaped parts and cut sections are available on request.

Production tolerances

	Length [mm]	Width [mm]	Thickness [mm]
PROMASIL®-1000L	± 3.0	± 3.0	± 0.5
PROMASIL®-1100 SUPER	± 3.0	± 3.0	± 0.5