

PROMASIL[®]-1000L, -1100 SUPER



Technical calcium silicates

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 in situations where conventional lightweight calcium silicate products cannot. It is the result of combining our PROMAXON[®] technology with the introduction of selected opacifiers in the mineral composition to further lower the thermal conductivity.

Technical data			
Grade		-1000L	-1100 SUPER
Colour		white/grey	white/grey
Classification temperature	°C	1000	1050
Bulk density	kg/m ³	300	300
Cold compressive strength (perpendicular direction)	N/mm ²	> 2.5	> 2.5
Linear shrinkage			
1000 °C - 12h	%	0.5	-
1050 °C - 12h	%	-	< 2
Thermal conductivity			
200 °C	W/m K	0.081	0.075
400 °C	W/m K	0.099	0.084
600 °C	W/m K	0.126	0.101
800 °C	W/m K	0.163	0.125
Specific heat capacity	kJ/kg K	1.02	1.03
Thermal expansion			
20-400 °C	K ⁻¹	5.4x10 ⁻⁶	5.4x10 ⁻⁶
Chemical analysis			
SiO ₂	%	45-47	40-42
CaO	%	43-45	38-40
others	%	-	9-13
LOI	%	9	9

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

Other sizes are available on request.

Production tolerances			
Length and width	mm	± 3.0	
Thickness	mm	± 0.5	

PROMASIL®-1000L, -1100 SUPER

Properties & advantages

- extremely low thermal conductivity
- low shrinkage
- low thermal mass, lightweight
- good mechanical strength
- high thermal stability
- large size format
- good workability

Application areas

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

HEAVY INDUSTRY

- **Aluminium industry:** anode baking furnace and electrolysis cells
- **Steel industry:** smelting and heat treatment furnaces
- **Glass industry:** melting furnaces, heat treatment and fuming furnaces
- **Ceramics industry:** bogie hearth furnaces, kiln cars
- **Cement industry:** heat exchangers and cyclone separators

OIL AND GAS INDUSTRY

- fired heaters
- pipe supports



Working & processing

This PROMASIL® range of products can be easily worked and machined with woodworking tools.

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

