PROMASIL®–1000, –1000P, –1100

High performance calcium silicates

PROMASIL®–1000, –1000P and –1100 are lightweight calcium silicate insulating boards.

In combination with dense and light-weight refractory bricks or concrete, they are the ideal back-up lining. Due to the low thermal shock resistance the boards are not suitable for front sided use.

PROMASIL® materials are produced as boards, pipe sections, segments and cut sections.

Technical data				
Grade		**-1000**	**-1000P**	**-1100**
Colour		white	white	white
Classification temperature	°C	1000	1000	1050
Bulk density	kg/m³	245	285	285
Cold compressive strength	N/mm²	> 1.5	> 2	> 2.5
Linear Shrinkage				
1000 °C – 12h	%	1.3	1.3	–
1050 °C – 12h	%	–	–	< 2
Thermal conductivity				
200 °C	W/m K	0.075	0.085	0.085
400 °C	W/m K	0.105	0.105	0.105
600 °C	W/m K	0.145	0.145	0.145
800 °C	W/m K	0.175	0.185	0.185
Specific heat capacity	kJ/kg K	1.03	1.03	1.05
Reversible thermal expansion	K^{-1}	$5.4x10^{-6}$	$5.4x10^{-6}$	$5.5x10^{-6}$
Protective gas-resistance		CO, NH_3, H_2, CH_4, N_2 atmosphere		
Moisture content (air-dry)	%	ca. 3–8		

Delivery sizes		
Length*	mm	1000
Width*	mm	500
Thickness*	mm	25 / 30 / 40 / 50 / 60 / 65 / 70 / 75 / 80 / 90 / 100

* Other sizes are available on request. Maximum: 2500mm x 1000mm, up to 150mm thickness.
Segments in all diameters, shaped parts and cut sections are available on request. Shaped parts and cut sections are available on request.

Production tolerances		
Length and width	mm	± 2
Thickness	mm	± 1

PROMASIL®-1000 pipe sections		
Inner diameter (min.)	mm	10
Outer diameter (max.)	mm	330
Pipe length	mm	500

PROMASIL®–1000, –1000P, –1100

Properties & advantages

- low thermal conductivity
- low shrinkage
- low bulk density, low heat storage
- good mechanical strength
- excellent resistance to corrosion under insulation (according to ASTM C795 and ASTM C1617)
- resisitant to reduction gases CO, NH_3, H_2 and CH_4
- free of sulphur, low iron
- good workability
- flexible size format, thickness up to 150 mm
- shaped parts available including pipe sections and segments
- product quality meets the ASTM and EN standards (CE mark)
- low assembly costs
- water repellent surface treatments
- antidust treatment
- chemical resistance improvement

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 foming furnaces
- **Ceramics industry:** bogie hearth furnaces, kiln cars
- **Cement industry:** heat exchangers and cyclone separators

OIL AND GAS INDUSTRY

- fired heaters
- pipe insulation, pipe support (suitable according to ASTM 1617 and 795)

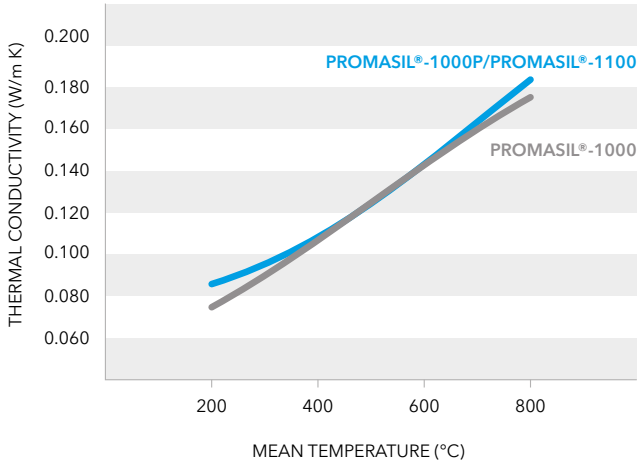
Working & processing

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

To avoid water absorbtion 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



Promat Inc. 1731 Fred Lawson Drive, Maryville, TN 37801 | T +1 (888) 681 0155 | F +1 (865) 681 0016
industryUS@promat.com | www.promat.com