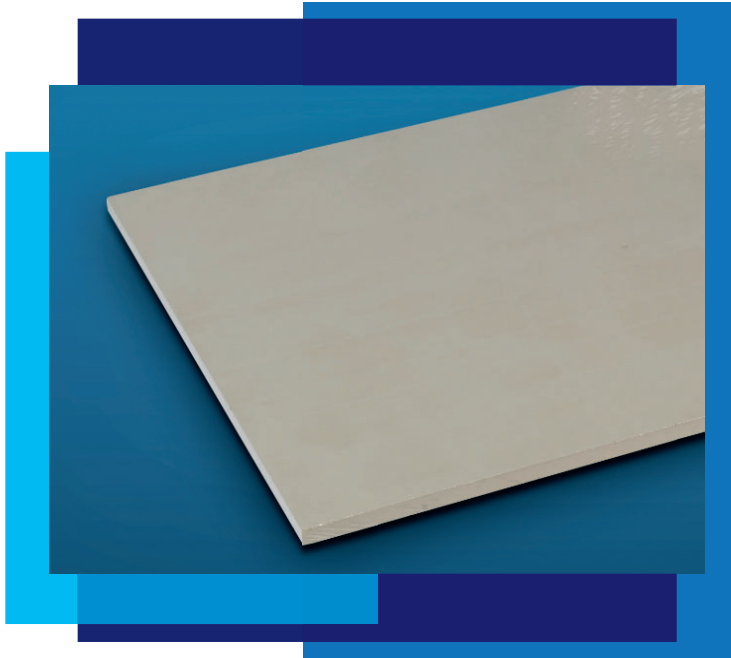


Promat

PROMALIGHT®

High temperature microporous insulation panel



General description

The PROMALIGHT® range of products are microporous insulation boards with very good thermal and mechanical properties. The formulation is an opacified blend of filament reinforced pyrogenic silica (alumina for 1200 grade).

PROMALIGHT®-1000X is a lightweight insulation board with silicon carbide as opacifier.

PROMALIGHT®-1000R has a similar thermal performance as PROMALIGHT®-1000X but contains no silicon carbide (often required in glass industry).

PROMALIGHT®-1200 is an alumina based insulation board product at higher density and is capable of withstanding peak temperatures of 1200 °C.

The PROMALIGHT® range of products is available in various coverings (PE foil & Aluminium). As an option, a reinforcement mica layer can be applied on both sides. This M-series increases the compressive strength by around 30% and improves handling.

TECHNICAL DATA

		PROMALIGHT®		
Grade		-1000X	-1000R	-1200
Standard finishing		Naked - PE foil - ALU (2 or 6 sides)*		
Additional protection option		Mica		
Classification temperature	°F (°C)	1,832 (1,000)	1,832 (1,000)	2,192 (1,200)
Nominal density	PCF (kg/m ³)	17.5 (280)	20.0 (320)	28.1 (450)
Compressive strength (ASTM C165)	PSI (Mpa=N/mm ²)	46.4 (0.32) 63.8 (0.44) with mica	46.4 (0.32) 63.8 (0.44) with mica	78.3 (0.54) 107.3 (0.74) with mica
Thermal conductivity (ISO 8302, ASTM C177)				
392°F (200°C)		0.16 (0.023)	0.15 (0.022)	0.20 (0.029)
752°F (400°C)	Btu-in/hr-ft ² ·°F	0.18 (0.026)	0.17 (0.024)	0.23 (0.033)
1,112°F (600°C)	(W/m·K)	0.21 (0.030)	0.20 (0.029)	0.27 (0.039)
1,472°F (800°C)		0.25 (0.036)	0.24 (0.034)	0.31 (0.044)
Specific heat capacity				
392°F (200°C)		0.21 (0.86)	0.22 (0.92)	0.21 (0.89)
752°F (400°C)	Btu/lb·°F (kJ/kg·K)	0.23 (0.96)	0.24 (1.00)	0.24 (0.99)
1,112°F (600°C)		0.25 (1.03)	0.25 (1.04)	0.25 (1.04)
1,472°F (800°C)		0.26 (1.07)	0.26 (1.08)	0.26 (1.07)
Shrinkage				
1-sided 12h - 1,832°F (1,000°C)	%	< 0.5	< 0.5	< 0.05
Full soak 24h - 1,832°F (1,000°C)		< 3	< 3	< 0.1
Full soak 24h - 2,102°F (1,150°C)		-	-	< 3

* Special coverings and coatings are available on request.

DELIVERY SIZES

PROMALIGHT® boards are produced in standard sizes. Smaller sizes are also available on request. Please contact your regional Promat agency to request your PROMALIGHT® sizes.

		-1000X	-1000	-1200	
Length	in (mm)	39.3 (1000)	39.3 (1000)	24.0 (610)	39.3 (1000)
Width	in (mm)	24.0 (610)	21.7 (550)	19.7 (500)	24.0 (610)
Thickness	in (mm)	3/8 - 2 (10-50)	3/4 - 2 (20-50)	3/8 - 1 (10-25)	1.2 - 1.5 (30-40)

PRODUCTION TOLERANCES

Length and width	in (mm)	± 1/8 (3)
Thickness	in (mm)	± 1/64 (0.5)

Properties & advantages

- extremely low thermal conductivity
- high thermal stability
- available in various temperature grades
- non-combustible
- easy to handle
- excellent machinability
- 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 when a large temperature reduction is required within a limited space, or when strict heat loss or surface temperature requirements are specified.

HEAVY INDUSTRY

- back-up insulation in industrial furnaces
- aluminium industry (launders, holding and smelter furnace, ...)
- glass and ceramics industry

OIL AND GAS

- petrochemical industry (cracking furnace, hydrogen reformer, ...)

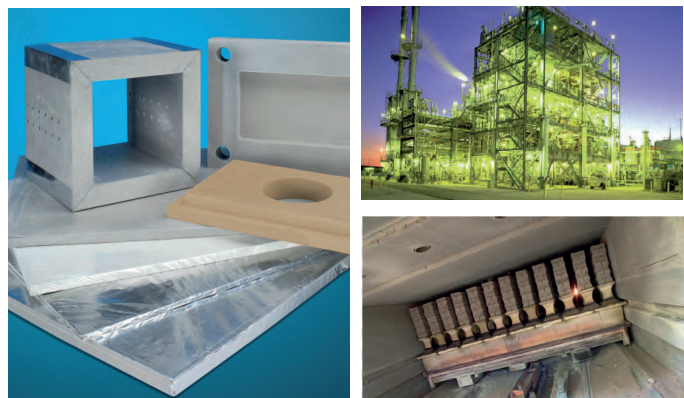
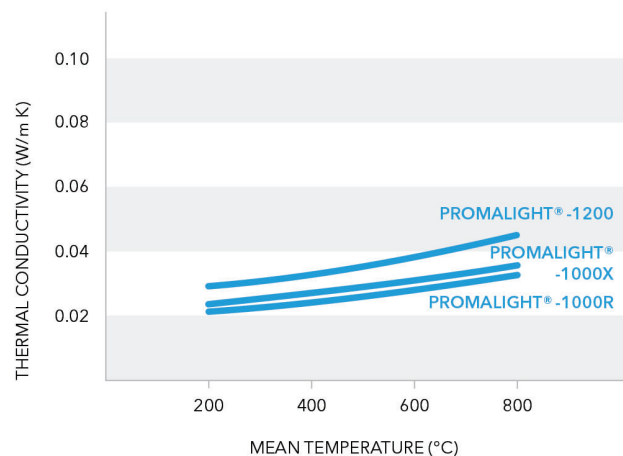
ENERGY

- fuel cells (SOFC)

Working & processing

PROMALIGHT® boards can be shaped both manually and with stationary wood processing machinery. They can be cut, sawn, drilled and punched. The boards can be fixed in place with glue or by mechanical means such as anchors, pins and clips. Dust is produced during procession. Dust can be harmful to health. Avoid contact with eyes and skin. Do not breathe in the dust. Dust should be removed by suction. The dust limits are to be adhered to. See product safety information sheet.

Thermal conductivity



All specified technical data are mean values from the production which are subject to the usual fluctuations and do not represent guaranteed properties in the sense of a guarantee. All information corresponds to the current state of the art and has been presented and described to the best of our knowledge. Changes due to new findings are possible, errors and misprints are not excluded. With regard to any liability, our delivery and payment terms apply exclusively. Request safety datasheet. With the publication of this edition, all previously published datasheets are invalid. © Copyright Etex NV, Brussels, Belgium. All rights reserved. 2021-05

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