

TECHNICAL DATA SHEET

INSULATION BOARD PROLIGHT

PROLIGHT is a microporous board with superior insulation and mechanical properties. Combination of IR absorber and fibre reinforced pyrogenic silica (Al₂O₃ for 1200).

PROLIGHT-1000X: is a lightweight, insulating board with silicon carbide as the IR absorber.

PROLIGHT-1000R: This plate shows similar thermal properties to PROLIGHT-1000 but does not contain silicon carbide (a condition often imposed on materials in the glass industry).

PROLIGHT-1200: consists of an insulating board based on Al₂O₃, a higher density product with a maximum thermal resistance of 1200 °C.

PROLIGHT boards are available with a variety of coverings (PE and ALU foil). An additional option can be a mica layer on both sides. It is called the "M" series and features an increased compressive strength of approximately 30 %, making the material easier to handle.



FEATURES

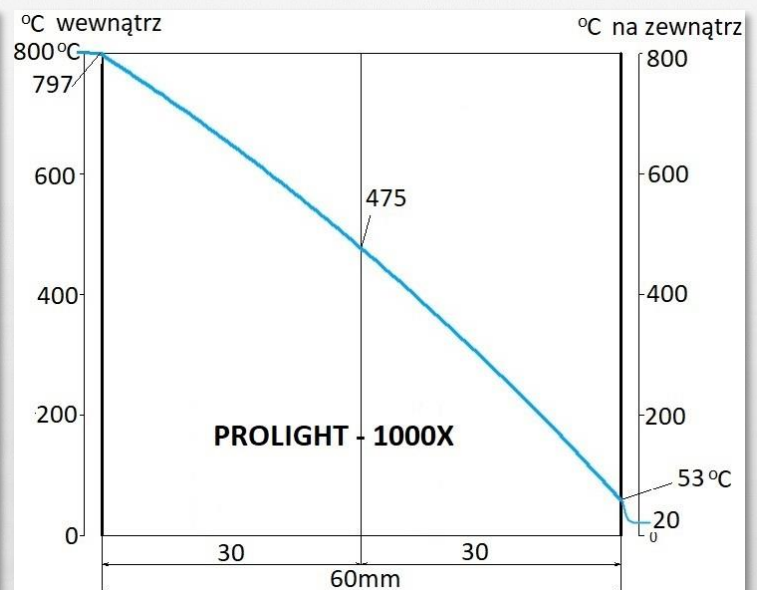
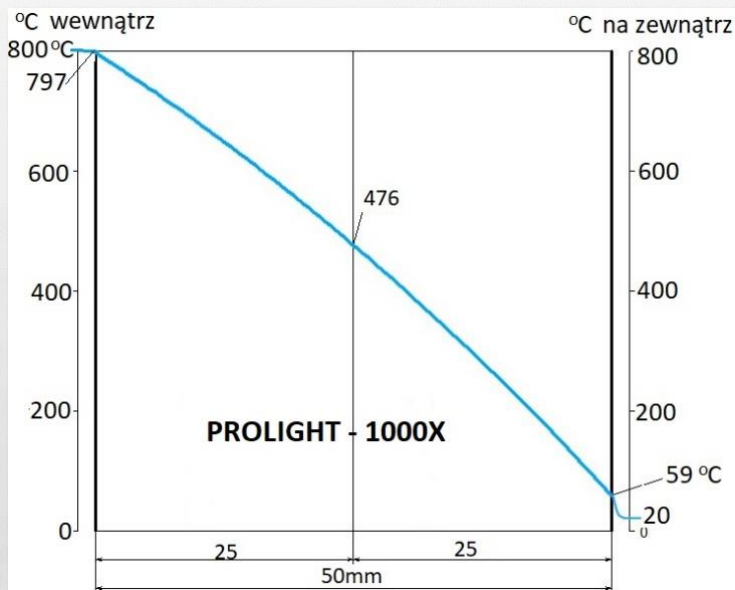
- Extremely low thermal conductivity
- High thermal stability
- Availability of different temperature variants
- Non-flammable
- Easy to install
- Excellent in mechanical processing
- No harmful: respirable fibres
- Environmentally friendly, no organic binders
- Resistant to most chemicals

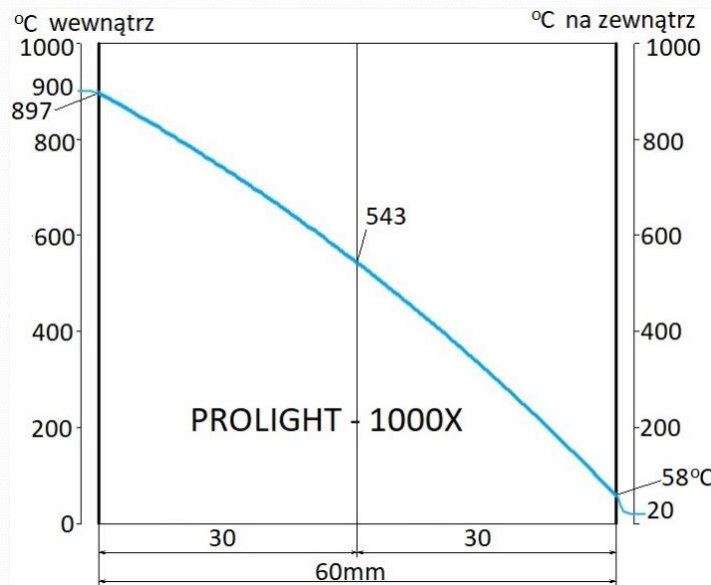
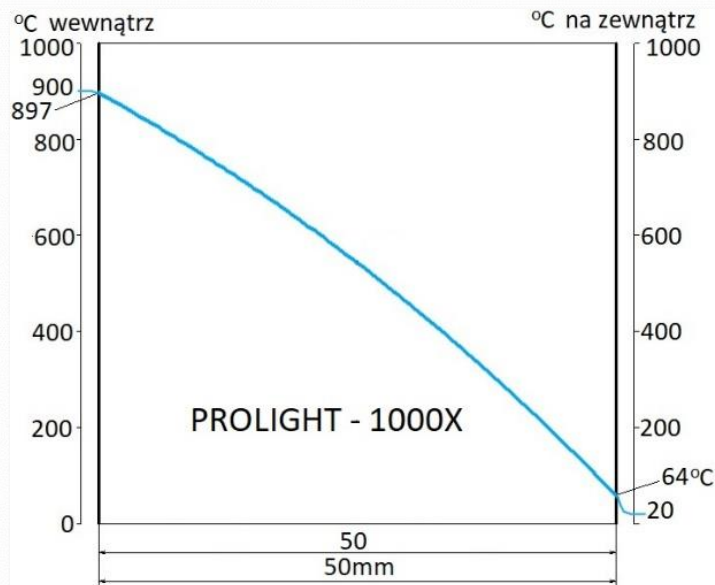
APPLICATION

Microporous insulations provide ultra-low thermal conductivity close to the theoretical minimum at high temperatures. Microporous materials are preferred wherever insulation is important, and space is limited or energy losses and thus cold wall temperatures are strictly regulated.

- Rear insulation in industrial furnaces
- Aluminium industry (gutters, furnaces, vats, transport containers for molten Al)
- Glass and ceramics industry
- Petrochemical industry (cracking furnaces, reforming plants, etc.)
- Fuel cells
- Thermal batteries
- Data recorders (protection of electronic components)
- Black boxes and data recorders for air, rail and sea travel

		1000X	1000R	1200
Standard material		PE - ALU film (2 or 6 sides)		
Additional protection option		mica		
Classification temperature	°C	1000	1000	1200
Density	kg/m ³	280	320	450
Compressive strength	MPa = N/mm ²	0,35 0,44-with mica	0,35 0,44-with mica	0,35 0,74-with mica
Thermal conductivity				
200 °C	W/m K	0,023	0,022	0,029
400 °C	W/m K	0,026	0,024	0,033
600 °C	W/m K	0,03	0,029	0,039
800 °C	W/m K	0,036	0,034	0,044
Specific heat capacity				
200 °C	kJ/kg K	0,86	0,92	0,89
400 °C	kJ/kg K	0,96	1	0,99
600 °C	kJ/kg K	1,03	1,04	1,04
800 °C	kJ/kg K	1,07	1,08	1,07
Shrinkage				
One side 12h - 1000 °C	%	0,5	0,5	0,05
Full soak 24hr -1000 °C	%	3	3	0,1
Full soak 24 h -1150 °C	%	-	-	3





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