

MICROTHERM® OVERSTITCHED

High temperature flexible microporous insulation panel

The MICROTHERM® OVERSTITCHED and range of products are custom made flexible microporous insulation panels with very good thermal properties. The panels are produced in a glass cloth outer envelope, making them clean & easy to handle. MICROTHERM® OVERSTITCHED is stitched in 2 directions for flexing. All versions are also available in a (SEMI-)OVERSTITCHED format which is primarily flexible in one direction. The formulation is an opacified blend of filament reinforced pyrogenic silica (alumina for 1200 grade).

MICROTHERM® OVERSTITCHED-1000X

is a flexible, custom made insulation panel.

MICROTHERM® OVERSTITCHED-1000X HY

is a flexible, custom made insulation panel with a hydrophobic core treatment to repel water. It is ideal for applications where contact with liquid water or condensation (dew point) is possible. Two hydrophobic grades available: hydrophobic (showerproof) for splash or rain resistance and full hydrophobic for more intense water resistance.

MICROTHERM® OVERSTITCHED-1200

is a flexible, alumina based, custom made insulation panel which is capable of withstanding peak temperatures of 1200°C.

Properties & advantages

- Custom made + flexible
- Extremely low thermal conductivity
- High thermal stability
- Shock + vibration resistant
- Available in different temperature grades, including a hydrophobic version

Typical applications

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.

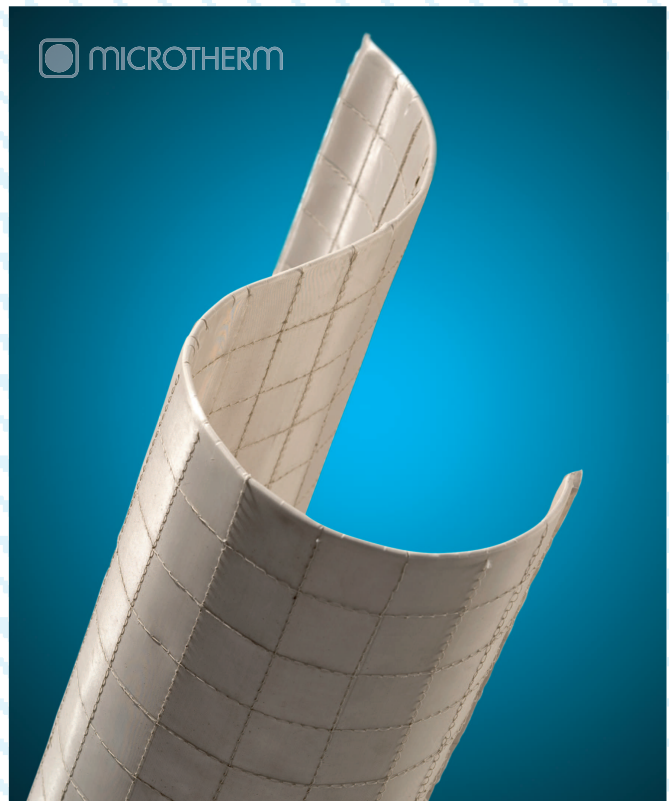
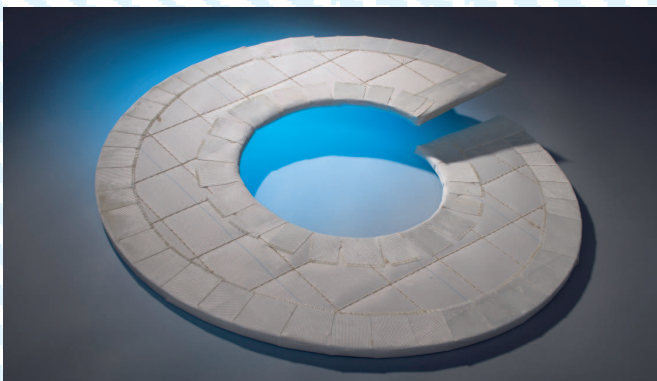
- Petrochemical industry & power generation
- Piping insulation
- Back-up insulation in refractory lined pipes
- Rotary kiln insulation
- Hot pipe support insulation
- Exhaust systems
- Filler material for mattresses, cassettes, heat shields, expansion joints
- PFP (Passive Fire Protection)

Working & processing

MICROTHERM® (SEMI-)OVERSTITCHED can be shaped easily with a simple utility knife (the procedure can be found on our website).

The panels can be fixed in place with glue or by mechanical means such as anchors, pins and clips. For piping applications, the panels are installed with wire and straps, identical to conventional insulation materials (the procedure can be found on our website).

- Non combustible
- Clean & easy to install (procedure can be found on our website)
- Simple to cut & shape (procedure can be found on our website)
- No harmful respirable fibres
- Environmentally friendly, free of organic binders
- Resistant to most chemicals



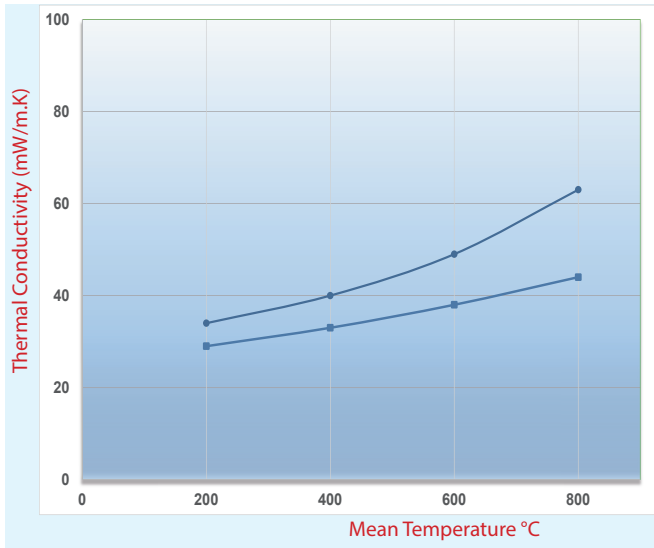


Technical data

Brand		MICROTHERM® OVERSTITCHED			
Grade		1000X	1000X HY	1200	
Standard finishing		Glass cloth (E-Glass)*			
Stitching pitch size		50x50mm			
Classification temperature		°C	1000	1000	1200
Nominal density		kg/m ³	220	260	350
Compressive strength (ASTM C 165)		MPa = N/mm ²	0.10	0.12	0.22
Thermal conductivity (ISO 8302, ASTM C177)					
	200°C mean	W/m.K	0.029	0.029	0.034
	400°C mean	W/m.K	0.033	0.033	0.040
	600°C mean	W/m.K	0.038	0.038	0.049
	800°C mean	W/m.K	0.044	0.044	0.063
Specific heat capacity					
	200°C	kJ/kg.K	0.96	0.96	0.89
	400°C	kJ/kg.K	1.07	1.07	0.99
	600°C	kJ/kg.K	1.14	1.14	1.04
	800°C	kJ/kg.K	1.19	1.19	1.07
Shrinkage					
	1-sided 12h @1000°C	%	< 0.5	< 0.5	< 0.05
	Full soak 24h @1000°C		< 3	< 3	< 0.1
	Full soak 24h @1150°C		-	-	< 3

*Special coverings and coatings are available on request.

Thermal conductivity graph



Product dimensions & size availability

Standard size for North America is 1220 x 610 (48" x 24") but available in custom sizes. Please contact your regional Promat agency to request your MICROTHERM® OVERSTITCHED sizes.

The standard thickness are 3, 5, 6, 8, 10, and 12.5mm. Additionally, custom thicknesses between 3mm and 12.5mm are available on request.

Production tolerances

Length [mm]	± 3
Width [mm]	± 3
Thickness [mm]	± 0.5



www.promat.us

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