



REFIAL® -MPI Stitchflex

Flexible Microporous Insulation

REFIAL® -MPI Stitchflex is a large sized overstitched microporous insulation panel.

REFIAL® -MPI Stitchflex is a flexible and customized microporous insulation solution for insulating pipes, curved surfaces and for complex or irregular shapes.

REFIAL® -MPI Stitchflex is available with stitching squares of 25 x 25 mm, and of 50 x 50 mm. Due to the overstitched pattern, the panel is 3D flexible and can be used for most different shapes.

REFIAL® -MPI Stitchflex is also semi-overstitched available (overstitched in one direction). These panels are 2D flexible and can be used for simple pipe or duct geometries.

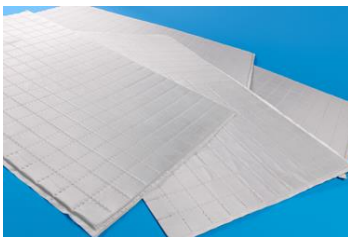
REFIAL® -MPI Stitchflex panels are based on inorganic materials, especially fumed silica and different opacifiers for minimizing infrared radiation.

Features and Benefits

- Extremely low thermal conductivity over a wide temperature range
- High thermal stability
- Low shrinkage
- Low in weight
- Wide range of sizes available to order
- Inorganic and non-combustible
- Shock and vibration resistant
- Simple to handle, cut, and make into complex shapes
- Can be combined with other flexible insulation products to form customised composite insulation systems
- No harmful respirable fibres
- Environmentally friendly
- Resistant to most chemicals

Cutting and Fixing

REFIAL® -MPI Stichflex can be shaped easily with a simple cutter. They can be fixed in place with glue or anchors, pins, or clips. The panels can be installed with wire and straps, identical to conventional insulation materials.



Typical Applications

- Due to the overstitched pattern, the panel is 3D flexible and so ideal for the insulation of round and complex shapes.
- Oil and Gas and Power Generation
- Process piping, hot pipe supports, inside high temperature jacketing systems on pipes and valves, or in cassettes and heat shields
- Concentrated Solar power
- Process piping and flexible Joints
- Transport (automotive, marine, rail, aerospace)
 - Inside heat shields and jacketing systems
 - Exhaust systems
 - Passive fire protection
- For use as back up insulation in:
 - Steel production process, in pipes and vessels, eg tuyere stocks on blast furnace.
 - Rotary kilns and crucible furnaces.
- Used to protect and control temperature inside the device, data logger, monitor, portable measurement instruments, temperature recorders
- Filler material for mattresses, cassettes, heat shields, expansion joints



Technical Data

Classification temperature of core (1)		1000°C	1100°C
Long time exposure		950°C	1050°C
Colour		White/Grey	
Nominal Density		200 kg/m ³	220 kg/m ³
Linear Shrinkage	24 full soak at 950°C 24 full soak at 1050°C	≤ 2,5% -	≤ 0,5% ≤ 2,5%
Specific heat capacity @	200°C 400°C 600°C 800°C	0,92 KJ/kgK 1,01 KJ/kgK 1,04 KJ/kgK 1,08 KJ/kgK	0,92 KJ/kgK 1,01 KJ/kgK 1,04 KJ/kgK 1,08 KJ/kgK
Thermal Conductivity @ (ASTM C 177: 2013)	200°C 400°C 600°C 800°C	0,023 W/mK 0,026 W/mK 0,032 W/mk 0,039 W/mK	0,030 W/mK 0,033 W/mK 0,038 W/mk 0,042 W/mK

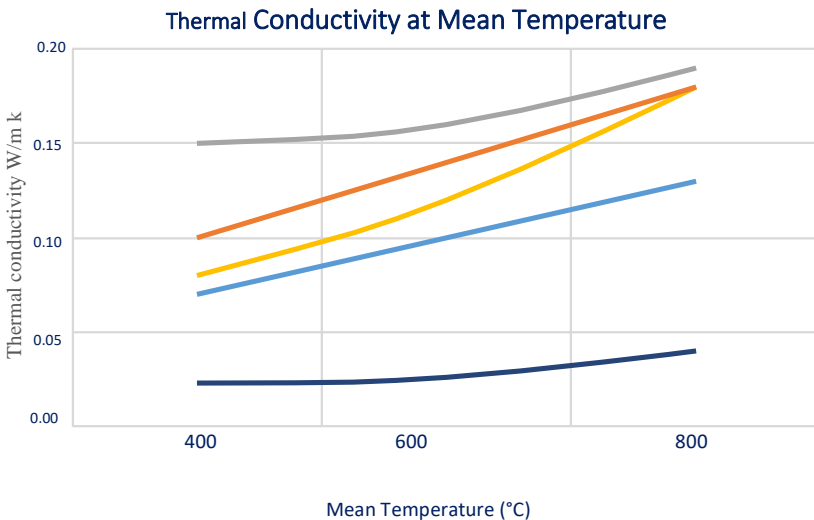
(1) Classification Temperature is not a definition of the operational limit of these products, especially when long term physical or dimensional stability is a factor. For certain applications operational temperature limits may be significantly reduced. For assistance or clarification please contact REFIAL office. info@refialbv.com

REFIAL® - MPI products reacts sensitively towards all wet materials such as water, oil, gasoline etc., as these materials destroy its pore structure). Therefore , special coverings and Hydrophobic grade are available, which makes the material insensitive to water and humidity (up to 300°C).

Dimension & Size Availability*

Product	Length x Width (mm)	Thickness (mm)	Stitching Centres (mm)
REFIAL® -MPI Stitchflex	1000 x 600	3, 5, 6, 10, 12.5	(25 x 25 mm) / (50 x 50 mm)

* Other sizes available upon request



REFIAL®-MPI products offer a realistic alternative to other lightweight insulations

REFIAL®-MPI products offer a realistic alternative compared to other lightweight insulation solutions, such as low density calcium silicate, vermiculite, fibre or wool based blankets and boards. The thermal resistance provided by REFIAL®-MPI products is a cost competitive alternative to the other lightweight insulation solutions on the market, whilst also delivering benefits in terms of space optimization and reduced weight.

— Vermiculite 350 kg/m ³	— AES Fibre Blanket 128 kg/m ³
— Calcium silicate boards 260 kg	— AES Fibre Board 320 kg/m ³
— REFIAL-MPI 1000	



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