

REFIAL[®]-MST Panel

Flexible Microporous Insulation Panel

REFIAL-MST Panel is a flexible microporous panel specifically developed for use in the steel industry and other molten metal applications. This insulation product combines low thermal conductivity with good mechanical properties

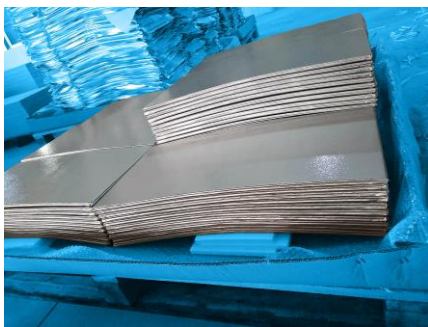
REFIAL-MST Panel is encapsulated in an aluminised envelope, making the panel clean and easy to handle and manipulate. The microporous insulation core is an opacified blend of pyrogenic silica with a filament reinforcement. The aluminised covering is water repellent to ensure the stability of the microporous core if contact is made with moisture laden castable and mortars.

Features and Benefits

- Extremely low thermal conductivity, high thermal stability
- Low shrinkage
- Low in weight
- High strength
- Wide range of sizes and customised shapes available to order
- Alternative grades available to suit the application
- Inorganic and non-combustible
- Shock and vibration resistant
- Simple to handle, cut, and shape
- No harmful respirable fibres
- Environmentally friendly
- Resistant to most chemicals.

Cutting and Fixing

REFIAL[®]-MST Panels can be easily cut with a sharp knife and fixed in a variety of ways similar to most conventional insulations with glue, retaining pins or anchors, straps or wire. Cut edges can be sealed with aluminium self-adhesive tapes.



Typical Applications

Ladles

- ⇒ Used in steel plants and ferrous metals industry

Tundish

- ⇒ Containers used to feed molten metal into a mould

Torpedo cars (torpedo ladles)

- ⇒ Transfer containers, equipment used in steel plants

Degassers

- ⇒ Used to mechanically remove entrained air and/or gasses from pipe lines and/or liquid systems



Technical Data

Classification temperature (1)	1000°C	1100°C
Long time exposure	950°C	1050°C
Nominal Density	325 kg/m ³	375 kg/m ³
Compressive Strength at 10% deformation	0,80 MPa	0,11 MPa
Thermal Conductivity		
200°C	0,022 W/m K	0,028 W/m K
400°C	0,023 W/m K	0,033 W/m K
600°C	0,027 W/m K	0,044 W/m K
800°C	0,032 W/m K	0,057 W/m K
Specific Heat Capacity		
200°C	0,92 KJ/kg K	0,92 KJ/kg K
400°C	1,01 KJ/kg K	1,01 KJ/kg K
600°C	1,04 KJ/kg K	1,04 KJ/kg K
800°C	1,08 KJ/kg K	1,08 KJ/kg K
Linear Shrinkage		
24h at 950°C	≤ 2,5 %	≤ 0,5 %
24h at 1050°C	-	≤ 2,5 %

(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@refraltec.com

Dimension & Size Availability*

Product Type	Length & Width (mm)	Thickness (mm)
REFIAL®-MST Panel	500 X 300(±3)	3,5,7,10(±1)

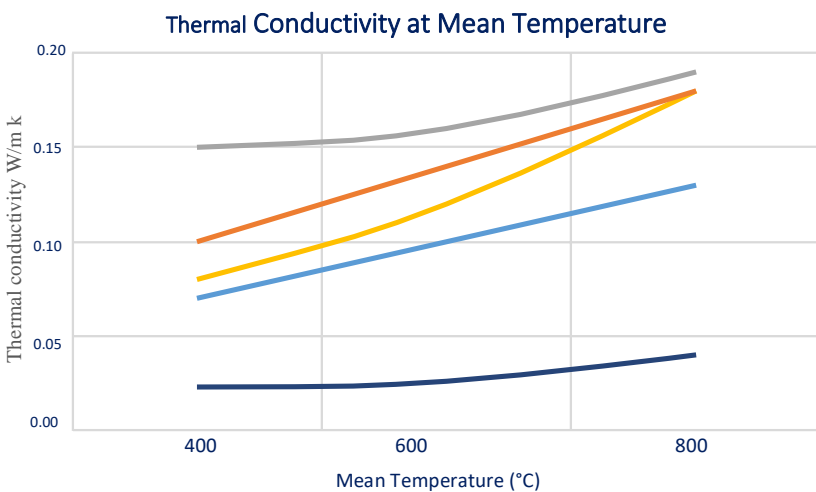
* Other sizes available upon request

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).

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.



REFIAL® contains the right to change without notice the properties and values of all products. The given technical values are obtained in specific conditions and are average and indicative. Data is representative of production and are subject to normal production fluctuations, they should not be deemed to constitute or imply any warranty of performance, the user is held responsible for determining the suitability of the products for the given application. Errors and omissions excepted. In case of any doubt if these properties and/or values are matching the application requirements, please contact REFIAL® for advice.