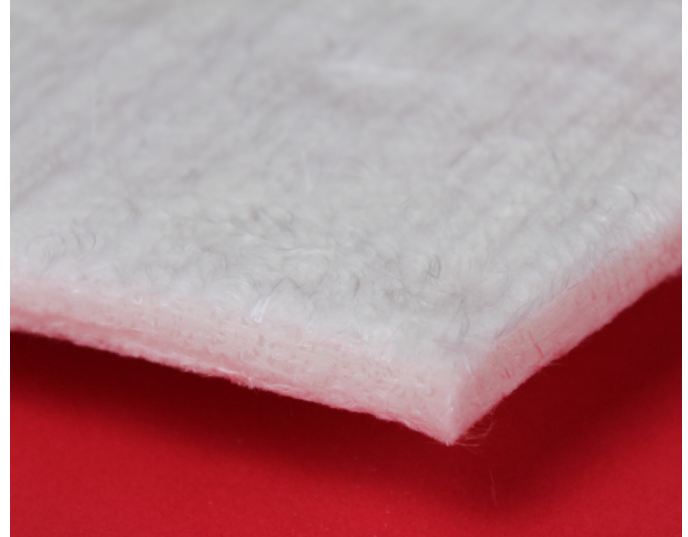




## Silica Blanket Type MNSB

### General Information

ZIRCAR Ceramics' Silica Blanket Type MNSB is a high temperature insulation blanket made of mechanically interlocked continuous filament amorphous silica fibers with useful properties to temperatures of 1100°C (2012°F). Silica Blanket is a strong needled blanket with very good handling properties. It is virtually shot free and has high resistance to attack by most chemicals. Exceptions include strong bases and hydrofluoric acid. This blanket exhibits thermal shock immunity, thermal conductivity and heat storage in the range of refractory ceramic fiber (RCF) blanket and is useful in many applications where RCF is not desired.



### Characteristics & Properties

Composition, wt%	
SiO <sub>2</sub>	97.85
TiO <sub>2</sub>	0.8
Al <sub>2</sub> O <sub>3</sub>	0.71
CaO	0.23
MgO	0.17
B <sub>2</sub> O <sub>3</sub>	0.16
Other Oxides	< 0.08
Bulk Density, g/cc (pcf)	0.14 - 0.16 (9-10)
Maximum Use Temperature*, °C (°F)	1100 (2012)
Melting Temperature, °C (°F)	1698 (3000)
Weight, kg/m <sup>2</sup> (lb/ft <sup>2</sup> )	
1" blanket	3.3 (0.68)
1/2" blanket	1.7 (0.34)
Fiber Diameter, micron	6-9
Linear Shrinkage‡, %	
24 hrs. at 760°C (1400°F)	6
24 hrs. at 982°C (1800°F)	8
24 hrs. at 1093°C (2000°F)	12.5

### ZIRCAR Ceramics, Inc.

PO Box 519  
100 N. Main St., Florida, NY 10921-0519  
Telephone: (845) 651-6600  
E-mail: sales@zircarceramics.com

Technical Data Bulletin  
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# Silica Blanket Type MNSB

## Characteristics & Properties Continued

Thermal Conductivity**, ASTM C177 Based on 1" blanket, 9.98 pcf, W/m <sup>2</sup> K (BTU/hr ft <sup>2</sup> F/in)	
92°C (198°F)	0.045 (0.31)
203°C (397°F)	0.059 (0.41)
316°C (600°F)	0.076 (0.53)
537°C (999°F)	0.124 (0.86)
649°C (1200°F)	0.16 (1.08)

The data presented herein is intended to help the user in determining the appropriateness of this material for their application.

This data is a nominal representation of this product's properties and characteristics and therefore should not be used in preparing specifications.

\* Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences. \*\* Properties expressed parallel to thickness.

## Suggested Applications

Annealing Cover Seals.  
 Flexible High Temperature Pipe Insulation.  
 Furnace, Kiln, Reformer and Boiler lining.  
 Furnace Door Linings and Seals.  
 Investment Casting Mold Wrap.  
 Expansion Joint Seals.  
 High Temperature Filtration.  
 Nuclear Insulation Applications.  
 Glass Furnace Crown Insulation.  
 Useful When Refractory Ceramic Fiber Are Not Desired.  
 Thermal Reactor Insulation.  
 Soaking Pit Seals.  
 Reusable Insulation For Field Stress Relieving Welds.  
 Insulation For Primary Reformer Header.  
 High Temperature Gasketing.  
 High Temperature Kiln and Furnace Insulation.  
 Fire Protection For Pressure and Cryogenic Vessels.  
 Lining For Incineration Equipment and Stack.

## Availability

Silica Blanket Type MNSB is available in a number of thickness 1/8in., 1/4in, 1/2in., and 1in. Full rolls 3 ft. wide, partial rolls or die cut parts.

## To Order

Contact ZIRCAR Ceramics sales department and we will provide a quotation.



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E-mail: [sales@zircarceramics.com](mailto:sales@zircarceramics.com)

[www.zircarceramics.com](http://www.zircarceramics.com)

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