



BLANKET  
**SUPERMAG**  
LOW BIO-PERSISTENCE FIBER



BLANKET  
**SUPERMAG HI**  
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### Product Description:

**SuperMag** Blankets are made from Nutec's Low Bio-Persistent (LBP) fibers. These Spun fibers are needled into a blanket, resulting in a product with high strength and superior thermal properties at temperatures up to 2200°F (1200°C). The superior needling eliminates the need for binders resulting in a completely inorganic blanket with no smoke generation or outgassing. **SuperMag** Blankets can be a cost effective alternative to Refractory Ceramic Fiber (RCF) for applications to 2200°F (1200°C), **SuperMag-HI** offers the same temperature rating as our standard **SuperMag** material, but with much lower shot content and finer fiber diameters, resulting in lower thermal conductivity, and reduce dust and irritation. Both grades are available in a range of thicknesses and densities.

### Typical Applications:

- **Appliances:** Ranges, Ovens, Chimneys, flues.
- **Power Generation:** Boilers, Expansion Joints, Removable Insulation, Cable trays, Batteries.
- **Iron & Steel:** Process Furnace linings, Slow Cool Cars, Soaking Pits, Ladle Covers.
- **Glass:** Glass Tank Crowns.
- **Others:** Structural Steel Fire Protection, Vehicle Exhaust Insulation & Heat Shields, Fire Barriers.

### Key Performance Features:

SuperMag Blankets meets the European directive I 272/2008 for bio-solubility

- Low Thermal Conductivity
- Low Thermal Shrinkage
- Strong, High Tensile Strength
- Total Inorganic
- Low heat Storage
- Resistant to Chemical Attack
- Flexible, lightweight
- Contains No Asbestos
- Thermal Shock Resistant
- Excellent Sound Absorption
- Easy to fabricate and Install
- High Heat Reflective



**Physical Properties:**

	<b>SuperMag</b>	<b>SuperMag-HI</b>
Color	White	White
Max Service Temp:	2200°F (1200°C)	2200°F (1200°C)
Operating Temperature	2000°F (1100°C)	2000°F (1100°C)
Shrinkage @ 2000°F/ 24 Hrs	0-1.5%	0-1.5 %
Specific Heat (Btu/lbs/F)	0.27	0.27
Avg Fiber Diameter	3-4 Microns	2-3 Microns

**Chemical Composition: (%)**

	<b>SuperMag</b>	<b>SuperMag-HI</b>
SiO <sub>2</sub>	60-70	60-70
CaO	25-35	25-35
MgO	3.0-7.0	3.0-7.0
Trace Elements	Less Than 1%	Less Than 1%
LOI	0	0

**SuperMag**

	<b>SuperMag</b>	<b>SuperMag</b>	<b>SuperMag</b>	<b>SuperMag</b>
<b>Density, lbs/ft3 (kg/m3)</b>	4 (64)	6 (96)	8 (128)	10 (160)

**Thermal Conductivity**

<b>Mean Temperature</b>	<b>Thermal Conductivity, BTU·in/hr·ft<sup>2</sup>·°F (W/m<sup>2</sup>·K)</b>			
392°F (200°C)	0.42 (0.06)	0.347 (0.05)	0.416 (0.06)	0.381 (0.05)
752°F (400°C)	0.90 (0.13)	0.694 (0.10)	0.694 (0.10)	0.61(0.09)
1112°F (600°C)	1.67 (0.24)	1.25 (0.18)	1.11 (0.16)	0.97 (0.14)
1472°F (800°C)	2.78 (0.4)	2.01 (0.29)	1.80 (0.26)	1.53 (0.22)
1832°F (1000°C)	4.09 (0.59)	2.78 (0.40)	2.78 (0.40)	2.29 (0.33)

**SuperMag HI**

	<b>Supermag HI</b>	<b>Supermag HI</b>
<b>Density, lbs/ft3 (kg/m3)</b>	6 (96)	8 (128)

**Thermal Conductivity**

<b>Mean Temperature</b>	<b>Thermal Conductivity, BTU·in/hr·ft<sup>2</sup>·°F (W/m<sup>2</sup>·K)</b>	
392°F (200°C)	0.26 (0.038)	0.35 (0.051)
752°F (400°C)	0.50 (0.072)	0.59 (0.085)
1112°F (600°C)	0.97 (0.14)	0.90 (0.13)
1472°F (800°C)	1.59 (0.23)	1.25 (0.18)
1832°F (1000°C)	2.43 (0.35)	1.73 (0.25)

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.  
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<b>Product Availability</b>	<b>SuperMag</b>	<b>SuperMag-HI</b>
Density (PCF)	4,6,8,10	6,8,
Thickness	½", 1", 1 ½", 2"	½", 1", 1 ½", 2"
<b>Roll Length (Std per thickness)</b>		
½"	50 LF	
1"	25 LF	
1 ½"	12.5 LF	
2"	12.5 LF	

**Standard Widths; 24" and 48"**, custom widths available upon request.

SuperMag blanket products, and all competitive products of similar chemistry, exhibit a loss of tensile strength when exposed to moisture. The extent of this loss of tensile strength depends on levels of exposure to moisture and conditions of storage. We recommend that these products be put into service as soon as possible after receipt, and that their use after six (6) months is undertaken only after thorough inspection of the blanket. The purchaser assumes all responsibility for fitness for application.

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. Please refer to the Product Safety Data Sheet (SDS) for recommended work practices and other product safety information.  
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