

# Supermag<sup>™</sup> Low Bio-Persistence products

Nutec<sup>™</sup> Supermag is a high temperature body low bio-persistence fiber that utilizes a unique spinning technology to create a special fiber with superior thermal and mechanical properties. This fiber is made from a blend of calcium, silica and magnesium and can be exposed to temperatures up to 2018 °F (1103 °C).

Nutec<sup>™</sup> Supermag products are produced in our ISO-9001: 2008 certified facility where bulk, double needled blanket and modules are manufactured. The Nutec<sup>™</sup> Supermag family of products can be used in a variety of applications including refractory linings, thermal insulation, and fire protection.



| Typical Physical Properties                        | Supermag Blanket                  | Supermag Board         | Supermag Bulk     |
|--|-----------------------------------|------------------------|-------------------|
| Density lb/ft <sup>3</sup><br>(kg/m <sup>3</sup> ) | 4, 6, 8, 10<br>(64, 96, 128, 160) | 21 - 25<br>(336 - 400) | ---               |
| Max. Short Term Exposure °F (°C)                   | Up to 2018 (1103)                 | Up to 2192 (1200)      | Up to 2192 (1200) |
| Continuous Use Limit, °F (°C)                      | 2012 (1100)                       | 1832 (1000)            | 1832 (1000)       |
| Melting Point, °F (°C)                             | 2320 (1270)                       | 2320 (1270)            | 2320 (1270)       |
| Typical Chemical Analysis, %                       |                                   |                        |                   |
| SiO <sub>2</sub>                                   | 60 - 70                           | 65 - 72                | 60 - 67           |
| CaO  | 25 - 35                           | 24 - 29                | 28 - 33           |
| MgO  | 3 - 7                             | 3 - 5                  | 1 - 7             |
| Others   | 0 - 1                             | 0 - 1                  | 0 - 1             |
| Linear Shrinkage<br>24 Hr @ 2012 °F (1100°C)       | 1.2                               | 1.2                    | 1.2               |
| Color  | White                             | White                  | White             |

## Blanket Dimensions

| Standard (in)    | Europe (mm)        |
|------------------|--------------------|
| 1/2 x 24 x 600   | 12.5 x 610 x 14640 |
| 3/4 x 24 x 300   | 19 x 610 x 7320    |
| 1 x 24 x 300     | 25 x 610 x 7320    |
| 1 1/2 x 24 x 150 | 38 x 610 x 4800    |
| 1 3/4 x 24 x 150 | 50 x 610 x 3660    |
| 2 x 24 x 150     |                    |

## Board Dimensions

| Standard (in)   | Europe (mm)                  |
|-----------------|------------------------------|
| 1/2 x 24 x 36   | Width:<br>610 & 1000         |
| 1 x 24 x 36     | Thickness:<br>10, 25, 38, 50 |
| 1 1/2 x 24 x 36 | Length:<br>1000 & 1220       |
| 2 x 24 x 36     |                              |

## FEATURES

- Low Thermal Conductivity
- Low Heat Storage
- High Tensile Strength
- Thermal Shock Resistance
- Lightweight
- Excellent Corrosion Resistance

## TYPICAL APPLICATIONS

- Aluminum Homogenizing Furnaces
- Back-Up Insulation
- Annealing Furnaces
- Stress Relieving
- Heat Treating Furnaces
- Crude Heaters
- Co-Generation Ducts
- Insulating Pads
- Expansion Joints

Health and Safety information: Supermag products by Nutec<sup>™</sup> meet European regulatory requirement Directive 97/69/EC, and possess a fiber chemistry within the regulatory definition of a "man-made vitreous (silicate) fiber with random orientation with alkaline oxide and alkaline earth oxide content greater than 18% by weight". Please Refer to the product Safety Data Sheet (SDS) for other recommended product safety information.