

# FIBERFRAX DURABLANKET Z

The **Fiberfrax Durablanket** family of lightweight needled blankets are manufactured from Fiberfrax refractory ceramic fibres and provide effective solutions to a variety of thermal management problems.

**Fiberfrax Durablanket products** offer superior insulating performance, excellent chemical resistance, flexibility and resilience. Fiberfrax Durablanket products are completely inorganic and so retain their strength, flexibility and thermal properties in many working environments, without the generation of smoke or fumes. Available in a wide range of density and thickness combinations, the Fiberfrax Durablanket range is one of the most versatile available to the market today.

## Typical applications

- High temperature furnace and kiln linings
- Boiler insulations
- High temperature gaskets and seals
- Pipe and duct insulation

## General characteristics

### Fiberfrax Durablanket Z has these outstanding characteristics:

- High temperature stability
- Low thermal conductivity & heat storage
- High tensile strength & resiliency
- Resistance to thermal shock & chemical attack
- Good sound absorption

**Fiberfrax Durablanket Z** is a high temperature blanket made from spun Zirconia stabilised ceramic fibre. It is a highly efficient insulator with extremely low shrinkage characteristics at elevated temperatures, low heat storage capacity and complete resistance to damage from thermal shock. Fiberfrax Durablanket Z is ideally suited to use in high temperature furnace lining systems.

Individual data sheets are available for the other products in the Durablanket range.

## Typical Product Parameter

| <u>Typical Chemical Analysis (wt. %)</u>          |             | <u>Physical properties</u>  |              |
|---|-------------|-----------------------------|--------------|
| SiO <sub>2</sub>                                  | 52,0 – 56,0 | Colour                      | : White      |
| Al <sub>2</sub> O <sub>3</sub>                    | 28,0 – 32,0 | Classification temperature* | : 1400 °C    |
| ZrO <sub>2</sub>                                  | 14,0 – 18,0 | Melting point               | : 1740 °C    |
| Alkalis   | <0,25       | Mean Fibre diameter         | : 3,25       |
| Fe <sub>2</sub> O <sub>3</sub> + TiO <sub>2</sub> | <0,20       | microns (mean)              |              |
|   |             | Specific heat at 1000°C     | : 1035 J/kgK |

\*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 continuous use temperature limits may be significantly reduced. For assistance or clarification please contact us. Where appropriate Physical Properties data measured according to EN 1094-1.

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## Permanent linear shrinkage (24 hour soak)

1400°C : 2,7 %

|   | 96 kg/m <sup>3</sup> | 128 kg/m <sup>3</sup> | 160 kg/m <sup>3</sup> |
|---|----------------------|-----------------------|-----------------------|
| <b>Tensile strength</b> (kPa)           | 70                   | 90                    | 110                   |
| <b>Thermal conductivity data</b> (W/mK) |                      |                       |                       |
| Mean temperature : 800°C                | 0,22                 | 0,18                  | 0,16                  |
| 1000°C                                  | 0,36                 | 0,28                  | 0,21                  |
| 1200°C                                  | 0,56                 | 0,45                  | 0,30                  |

| <b>Availability</b> |                              |     |     |                 |
|---------------------|------------------------------|-----|-----|-----------------|
|                     | Density (kg/m <sup>3</sup> ) |     |     |                 |
| Thickness (mm)      | 96                           | 128 | 160 | Roll length (m) |
| 13                  | ✓                            | ✓   | ✓   | 14,64           |
| 19                  | ✓                            | ✓   | ✓   | 10,00           |
| 25                  | ✓                            | ✓   | ✓   | 7,32            |
| 38                  | ✓                            | ✓   | ✓   | 5,00            |
| 50                  | ✓                            | ✓   |     | 3,66            |

Standard roll width is 610mm. Other thicknesses / sizes may be available on request subject to minimum order requirements. Versions with aluminium foil and other coverings are available subject to order.

## Handling information

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

Any new and/or special use of these products, whether or not in an application listed in our literature, must be submitted to our technical department for their prior written approval.

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