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Unifrax Ltd.

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DESCRIPTION

Fiberfrax Durafelt products are manufactured from Fiberfrax refractory ceramic fibres, blended with specially selected organic binders to give flexible felts with exceptional characteristics. Our advanced felting process ensures a lightweight, high strength product enhanced by low thermal conductivity and exceptional handling characteristics. The various blends of refractory fibres used in the manufacturing process, provides a comprehensive range of felts with operating temperature limits up to 1400°C. Fiberfrax Durafelt products are available in a wide range of sizes and thicknesses.

GENERAL CHARACTERISTICS

Fiberfrax Durafelt products have these outstanding characteristics:

- High temperature stability
- Low thermal conductivity
- High resiliency
- Lightweight
- Excellent flexibility
- Easy to wrap, cut and shape

TYPICAL APPLICATIONS

- Flexible high temperature gaskets and seals
- Ingot mould liners
- Molten metal transfer systems (back-up insulation)
- Expansion joints

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.

TYPICAL PRODUCT PARAMETERS

| Durafelt | LD | HD | Z |
|--|-------------|-------------|-------------|
| Typical Chemical Analysis (fibre wt. %) | | | |
| SiO ₂ | 48.0 - 54.0 | 50.0 - 58.0 | 52.0 - 56.0 |
| Al ₂ O ₃ | 46.0 - 52.0 | 42.0 - 50.0 | 28.0 - 32.0 |
| ZrO ₂ | - | - | 14.0 - 18.0 |
| Alkalis | <0.25 | <0.25 | <0.25 |
| Physical Properties | | | |
| Colour | White | White/Beige | White/Beige |
| Melting Point (°C) | 1800 | 1800 | 1740 |
| Product Density (kg/m ³) | 110 - 190 | 200 - 300 | 200 - 300 |
| Tensile Strength (kPa) | >170 | >100 | >50 |
| Classification Temperature (°C) * | 1250 | 1250 | 1400 |
| Loss on Ignition (wt.%) | <10.0 | <10.0 | <10.0 |
| Thermal Conductivity (W/mK) | | | |
| Mean Temp. | | | |
| 600 °C | 0.08 | 0.11 | - |
| 800 °C | 0.12 | 0.14 | 0.15 |
| 1000 °C | 0.16 | 0.19 | 0.21 |
| 1200 °C | - | - | 0.29 |
| Permanent Linear Shrinkage (%) 24 Hour Soak | | | |
| 1250 °C | <4.0 | <4.0 | - |
| 1400 °C | - | - | <4.0 |

*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 your nearest Unifrax Engineering office. Where appropriate Physical Properties data measured according to EN 1094-1.

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AVAILABILITY

| Thickness (mm) | LD | Roll Length (m) | | HD | Z | Sheets per Carton |
|-----------------|-----|-----------------|-----------------|-------------|----|-------------------|
| Roll Width (mm) | 610 | 1220 | Sheet Size (mm) | 1250 x 1000 | | |
| 3 | ✓ | 30 | 90 | ✓* | ✓* | 32 |
| 6 | ✓ | 15 | 45 | ✓ | ✓ | 16 |
| 9 | ✓ | 10 | 30 | ✓ | ✓ | 10 |
| 12 | ✓ | 10 | 10 | ✓ | ✓ | 8 |
| 18 | | | | ✓ | ✓ | 5 |
| 25 | | | | ✓ | ✓ | 4 |

*Also available in rolls of 1000mm x 12m and 1000mm x 25m.
Other thicknesses / sizes may be available on request subject to minimum order requirements

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.

Supplied by: