Fiberfrax® & High Temperature Pumpable Mastics

DESCRIPTION

Fiberfrax Pumpable Mastics are insulation materials composed of Fiberfrax refractory ceramic fibres and sometimes also polycrystalline fibres dispersed in high temperature binders, which upon drying produce a strong insulating structure with low thermal conductivity. High Temperature Pumpable Mastics are composed of polycrystalline fibres dispersed in binders. These versatile products can be can be pumped, caulked or trowelled quickly and easily into place for use in filling, sealing and repair applications.

GENERAL CHARACTERISTICS

Fiberfrax Pumpable Mastics have the following outstanding characteristics:

- Low thermal conductivity
- Resistance to thermal shock
- Excellent vibration resistance
- Low shrinkage
- Good adhesion
- Ease of installation

TYPICAL APPLICATIONS

- Caulking of refractory cracks & expansion joints
- Casing "hot spot" repairs (refractory or fibre lined equipment)
- Furnace door frame/jamb seals
- Sealing of gaps around furnace penetrations/windows

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.

Start saving energy now.
Contact your local distributor.

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**Fiberfrax® & High Temperature Pumpable Mastics**

**TYPICAL PRODUCT PARAMETERS**

<table>
<thead>
<tr>
<th>Fiberfrax &amp; HT Pumpable</th>
<th>120</th>
<th>140</th>
<th>160</th>
<th>High Temp Pumpable 175</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Properties</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
<td>White</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>Product Form</td>
<td>Putty</td>
<td>Putty</td>
<td>Putty</td>
<td>Putty</td>
</tr>
<tr>
<td>Use Limit (°C) *</td>
<td>1200</td>
<td>1400</td>
<td>1600</td>
<td>1750</td>
</tr>
<tr>
<td>Wet Density (kg/m³)</td>
<td>1050</td>
<td>1050</td>
<td>1500</td>
<td>1500</td>
</tr>
<tr>
<td>Dry Density (kg/m³)</td>
<td>300-350</td>
<td>300-350</td>
<td>1100</td>
<td>1100</td>
</tr>
</tbody>
</table>

**Thermal Conductivity (W/mK)**

| Mean Temp. | 600 °C | 0.09 | 0.09 | 0.28 | 0.09 |
|            | 800 °C | 0.13 | 0.13 | 0.32 | 0.13 |
|            | 1000 °C | 0.19 | 0.19 | 0.43 | 0.19 |
|            | 1200 °C | 0.52 |      | 0.50 |      |
|            | 1400 °C | -   |      | 0.68 |      |

**Permanent Linear Shrinkage (%) 24 hour soak**

|            | 1200 °C | <5.0 | -   | <5.0 | -   |
|            | 1400 °C | -   | <5.0 | -   | <5.0 |

*The maximum continuous limit temperature for these products depends upon application conditions. For certain applications operational 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.

**INSTALLATION & DRYING PROCEDURES**

**Installation**

Fiberfrax & High Temperature Pumpable Mastics can be easily installed by using approved equipment. Details of recommended pump units, applicator tools and caulking guns are available upon request from your nearest Unifrax office.

Fiberfrax Pumpable 160 and High Temperature Pumpable 175 cannot be installed using Fraxpump.

**Drying**

Fiberfrax & High Temperature Pumpable Mastics can be dried at room temperature but this requires an extended period of time. Therefore forced air heating at 100°C is recommended. Firing or heat up of the equipment or furnace will allow for quicker removal of moisture from the material. During the first firing, some initial out-gassing can be expected at elevated temperatures. Ventilation is required to permit escape of steam.

**AVAILABILITY**

**Shelf Life & Storage**

Fiberfrax & High Temperature Pumpable Mastics can be stored for up to 6 months, based on unopened container kept in cool dry storage conditions. Storage between 5 and 20°C is recommended. (Excessive heat will shorten the shelf life and freezing will result in irreversible damage to the product.)

**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:**

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