FIREFRAX® No. 1F Mortar

FIREFRAX No. 1F mortar is used for laying and pointing fireclay or other alumina-based refractory brickwork. It can be used in contact with most refractories at elevated temperatures and has a very strong set at low temperatures, making it effective for lower temperature applications. Because of its fine, smooth texture, it is well-suited for dipped joints. The shelf life for this mortar, particularly in hot weather, is very good compared to many other mortars.

The maximum use temperature stated is for continuous duty, “dry” heat, hot face service. Results may vary as affected by slags, hot metals, chemical fumes, etc.

**Typical Chemical Analysis**

<table>
<thead>
<tr>
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<th>%</th>
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</thead>
<tbody>
<tr>
<td>Al₂O₃</td>
<td>40.8</td>
</tr>
<tr>
<td>SiO₂</td>
<td>55.0</td>
</tr>
<tr>
<td>Fe₂O₃</td>
<td>0.4</td>
</tr>
<tr>
<td>CaO</td>
<td>0.2</td>
</tr>
<tr>
<td>Na₂O</td>
<td>2.7</td>
</tr>
<tr>
<td>MgO</td>
<td>0.2</td>
</tr>
<tr>
<td>TiO₂</td>
<td>0.7</td>
</tr>
</tbody>
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**Typical Physical Properties**

- **Grain size**: 35F
- **Density (cast and fired)**: 113 lbs./ft³ (1810 kg/m³)
- **Maximum Hot face Temperature**: 3,000°F (1,649°C)
- **Water added per 100 lbs. (45.4 kg)**
  - Troweling: Use as-received in pails
  - Dipping, brushing, spraying: 4-8 pints (2-4 liters) (4-8%)
- **Set Time:**
  - Stiffens: 1 hour
  - Initial Set: 4-6 hours
  - Final Set: 18-24 hours
TECHNICAL BULLETIN

Amount Required
Use 400 lbs (182 kg) per 1,000 9” equivalent bricks (straights).
For patching, use 10 lbs/ft² per inch of thickness (50 kg/m² per 2.5 cm of thickness).

Packaging
Shipped in 50 lb. pails.

Shelf Life
MK-1107 should always be stored under dry and well-ventilated conditions. If stored under such conditions, it may be kept up to one year without significant loss of properties.