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Unifrax Ltd.

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DESCRIPTION

Silplate Mass is a ready-mixed mastic-like coating. Based on the patented Silplate technology, high-purity refractory oxides and fibres are bonded with an inorganic binder system to create a wet mix that can be applied as a hot face lining over brick, castable or fibre module linings (Edge stacked/edge grained surface only).

Once dried, this mastic provides a hard, tough armour-like shell over the surface of the substrate material. At high temperatures >1300°C, a strong bond is formed between the fibres and the fillers in the material, which provides high physical stability to the lining surface and protects the backup material over which it is applied.

The cured Silplate Mass surface is highly resistant to flame impingement, flue gas velocities and chemical attack from fluxing agents common in industrial furnaces and kilns.

GENERAL CHARACTERISTICS

Silplate has the following outstanding characteristics:

- High temperature
- Low thermal conductivity & thermal shrinkage
- Surface hardness
- Mechanical strength
- Excellent thermal shock resistance

MAIN APPLICATIONS: VARIOUS INDUSTRIES

- Protective coating for fibre modules e.g. Steel reheat furnaces
- Application over refractory linings
- Shop fabrication of ducts, incinerators and stacks
- Hot gunning repairs

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.

PRODUCT RANGE

Silplate Mass 1500 includes ASW & PCW fibres and is compatible with Fiberfrax, Saffil, M-Fil and Fibermax modules as part of the Unifrax “Silplate Mass Module System”.

Silplate Mass S includes AES & PCW fibres and is compatible with Isofrax and Insulfrax modules as part of the “Silplate Mass Module System”.

INSTALLATION & DRYING PROCEDURES

Installation

- Trowel
- Spraying/Gunning
- Pouring
- Moulding
- Pump Injection

When applied to fibre surface/modules, the Mass must be applied on to an edge stacked/edge grained surface.

Typical coating thickness 10mm but this can vary subject to application. Unifrax approved installation techniques must be followed. Please contact the Unifrax Technical Services team for assistance.

Drying

No pre-firing cycle required to dry Silplate Mass. However, product should be dried before transport at approximately 150°C for 24 hours or until fully dry prior to moving.

TYPICAL PRODUCT PARAMETERS

<i>Silplate Mass</i>	<i>1500</i>	<i>S</i>
Physical Properties		
<i>Colour</i>	<i>Pink</i>	<i>Green</i>
<i>Base Composition</i>	<i>Alumina-Silica</i>	<i>Magnesia-Silica</i>
<i>Use Limit (°C) *</i>	<i>1500</i>	<i>1500</i>
<i>Wet Density (kg/m³)</i>	<i>1280</i>	<i>1280</i>
<i>Dry Density (kg/m³)</i>	<i>880</i>	<i>800</i>
<i>Mass Loss @1500°C (%)</i>	<i>1.5</i>	<i>~1.5</i>
Permanent Linear Shrinkage (%) 24 Hour Soak		
<i>1400 °C</i>		<i>~1.0</i>
<i>1500 °C</i>	<i><1.0</i>	<i>~1.5</i>

*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.

AVAILABILITY

25 kg pail

Shelf Life & Storage

Silplate Mass 1500 can be stored for up to 12 months and Silplate Mass S for 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 could 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: