

SigaMent SP 662

Halogen free potassium silicate mortar

Description:

SigaMent SP 662 is a halogen free potassium silicate mortar, which has been specially designed to be used by spraying (similar to sprayed concrete).

SigaMent SP 662 is a compact system which includes a specially formulated hardener, which by mixing with water, chemically reacts to harden.

Characteristics:

- Halogen free containing no fluorides
- Extremely high acid resistance
- Temperature Resistance to +900°C
- Very good bonding strength to steel
- Nearly the same coefficient of expansion as steel

Applications:

SigaMent SP 662 is used as a corrosion protection in larger buildings and vessel areas, as a monolithic coating. The coating thickness should be between 10 – 20 mm thick. The coating is mainly designed for steel areas; such as steel chimney flues, Cowper and Cyclones. It is not recommended for the storage of liquids in steel tanks. The cylinders, vessels etc. must have sufficient space to accommodate the spraying pipes. The free working space should not be less than 1.50 m in diameter.

Chemical resistance:

Information on the chemical resistance is available on request.

Substrate:

Components to be coated shall be designed and manufactured in accordance with EN 14879-1. Before start of coating work, the suitability of the surface preparation measures according EN 14879-1 must be checked and recorded.

Pot life (20°C):

Product	Time (min)
SigaMent SP 662	ca. 90

Curing (20°C):

Load Capacity	Time
Over workable	ca. 24 h
Thermal loadable	ca. 48 h
Chemical load	ca. 14 Days

Packaging:

The products are supplied in the following standard package sizes:

Product	Size	Article No.
SigaMent SP 662 POWDER	25 kg	592 0170

Storage:

The products must be stored in a cool and dry place, away from direct sunlight. At the specified storage temperatures a shelf life of the products is given of at least for the following periods:

Product	Temperature	Shelf Life
SigaMent SP 662 POWDER	-	24 Months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof. In addition, the DIN 7716 must be observed.

1. Surface preparation

C-STEEL

All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN Fachbericht #28 and EN ISO 8502.

Ferrite steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A standard preparation degree of SA 2½ (SSPC SP-10; NACE #2) as specified in EN ISO 8501-1 must be achieved. The primer must be applied immediately after the blasting.

CONCRETE

Appropriate action shall be taken to prepare the concrete surfaces; dry and free of dust and free of contaminants such as oil or grease. The concrete shall have minimum tensile strength of 1.5 N/mm². The residual moisture content must not exceed 4%.

2. Environmental conditions

The specified environmental conditions must be observed during surface preparation and brick lining and be tested and recorded according EN 14879-6.

Environmental conditions	Value
Relative Humidity	≤ 80%
Surface Temperature	≥ +10°C up to +30°C
Application Temperature	+20°C ± 5°C recommended
Dew Point Distance	min. 3K

3. Application

The execution of the brick lining work is only permitted, if the requirements of "Surface Preparation" and "Environmental Conditions" are met.

SigaMent SP 662 is spray applied with a rotary machine, incorporating a sandblasting rotor, which applies the coat by operating continuously like the revolver system (e.g. Alivia-246).

The diameter of the hose at the front should be between 25 mm and 32 mm. Generally, the pressure is set at between 2 – 3 bar. It should be finely adjusted, so that it results in a faultless coating. Pressure being set too high will result in loss of material, when it rebounds.

4. Work tools

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels

- Flat / wide brush
- Mortar trowel
- Rotary machine (Alivia-246)
- Miscellaneous (safety glasses, rubber gloves etc.)

5. Mixing ratio

The spray coating of **SigaMent SP 662** occurs, when the **SigaMent SP 662** Powder is rotary mixed at the spray nozzle with water, similar to the guniting process.

SigaMent SP 662	kg per litre	Parts by Weight	Parts by Volume
Water	3.300	18	-
SigaMent SP 662 POWDER	18.000	100	-

6. Cleaning

Clean all equipment with water immediately after use. The cleaning is done while the material is still not hardened.

7. Safety measures

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

Technical Data	Standard	Unit	Value
Flexural Strength	EN ISO 178	N/mm ²	10
Compressive Strength	EN ISO 604	N/mm ²	30
Coefficient of Thermal Expansion	-	1/K	12 x 10 ⁶
Max. Operating Temperature Liquids	-	°C	+ 900

Note: The indicated temperatures are dependent on the present load and may vary

SigaMent SP 662; 0.00/28.08.2016. All information contained herein is based on the current state of our knowledge and practical experience at the time of release. Therefore, please make sure that this is the actual edition of the Technical Data Sheet. All data are only intended as a guideline for informational purposes and do not constitute a legally-binding warranty of the suitability for a certain purpose of use, due to its dependence on site conditions and possible processing, use and applications. All information contained in this technical datasheet is subject to change without notice.

SIGAS GmbH
 Huttropstr. 60
 45138 Essen
 Germany
 Tel: +49 201 17003 270
 Fax: +49 201 17003 277
 E-Mail: info@sigas.de
 Web: www.sigas.de