SigaMent SP 664

Halogen-Free Sodium Silicate Mortar

Empowered by Expertise!

Description:

SigaMent SP 664 is a halogen-free Sodium Silicate mortar, which in order to be applied only needs to be mixed with water; which chemically reacts with the powder to harden. The Hardener and Binder are included in the powder.

Characteristics:

- Halogen-Free containing no fluorides
- Extreme high corrosion protection
- Temperature Resistance to +900° C
- Easy to use

Applications:

SigaMent SP 664 is used mainly for the fixing of Electrodes in Halogen Lamps. It is also used as an insulator in the electronics industry. **SigaMent SP 664** has relatively good water and rinsing properties, but does not allow for permanent operation. With the exception of Hydrofluoric Acid, **SigaMent SP 664** is resistant to all acids, solvents, oxidising agents, oils and fats; but is not resistant to alkalis.

Chemical resistance:

Information on the chemical resistance properties are available on request or can be taken from the resistance chart.

Substrate:

Suitable substrates are ceramic, glass or metal substrates. Components shall be designed and manufactured in accordance with EN 14879-1.

Pot life (20°C):

Product	Time (min)
SigaMent SP 664	ca. 90 min

Curing (20°C):

Load Capacity	Time
Loadable	24 hours

Packaging:

The products are supplied in the following standard package sizes:

Product	Size	Article No.
SigaMent SP 664 powder	25 kg	592 0140

Storage:

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

Product	Temperature	Shelf Life
SigaMent SP 664 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.

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.

Ferretic steel surfaces shall be abrasive blasted to “Near White Metal”. A standard preparation degree of SA 2½ ac-cording EN ISO 12944-4 must be achieved.

Ceramic and Glass

Appropriate action shall be taken to prepare the surfaces; dry and free of dust and free of contaminants such as oil or grease and shall have minimum peel strength of 1.5 N/mm². A mechanical treatment by blasting may be required.

2. Environmental conditions

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

Lamps which have been jointing or filled with **SigaMent SP 664** can only be put into operation, after the mortar has completely hardened.

4. Work tools

The following equipment is essential for the application of **SigaMent SP 664***:*

- Stirrer (max. 300 r/min.)
- Measuring Jugs and Mixing vessels
- Brushes
- Mortar Trowel
- Jointing Trowel, Joint Extruder
- PSA (safety glasses, rubber gloves etc.)

5. Mixing ratio

Pour the water into a mixing tub. Add the **SigaMent SP 664 Powder** mixing constantly and thoroughly (3 min) until a homogenous and lump-free mass is produced.

When mixing **SigaMent SP 664,** a characteristic is that mixture is an often found to be too dry at first; although after 5 min of mixing, a mix is produced which is good to apply. At lower temperatures, warmed water (+30°C to +60°C) could be used to shorten the mixing time

SigaMent SP 664	kg	Parts per weight	Parts per volume
Water	0.28	18	-
SigaMent SP 664 Powder	1.55	100	-
	1.83 kg = 1 Litre		

6. Cleaning

Clean all equipment immediately after use with water. The cleaning is to be carried out as long as the material is not cured.

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	DIN EN ISO 178	N/mm²	8
Density (Completed mixture HES)	DIN EN ISO 2811-1	g/cm³	1.83
Compressive Strength (Cylinder)	DIN EN ISO 604	N/mm²	20
Modulus of Elasticity	-	N/mm²	1.1×10^4
Hardness Shore D		-	> 30
Lineal Co-efficient of Expansion	-	K^{-1}	12×10^{-6}
Max. Operating Temperature	-	°C	+900
Thermal Conductivity		W/(m · K)	1.2

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