



You Build, We Protect!

HEGSEL[®] SP 662

Water Glass Spray Lining Mortar

Description:

HEGSEL SP 662 is a one component halogen-free water glass mortar designed for spray application, similar to shotcrete. For fast and easy application, only water needs to be added to the pre-formulated system containing a hardener, enabling chemical curing of the mortar.

Characteristics:

- Excellent acid resistance (not including hydrofluoric acid)
- Highly resistant to aggressive gases or flue gas components
- Provides optimal bond strength to steel with a similar thermal expansion coefficient
- Temperature resistance up to 900°C (Dependent on the type of chemical being used)
- Easy preparation and application
- Halogen-free

Application Areas:

A typical application of **HEGSEL SP 662** involves the efficient production of monolithic coatings on dimensionally stable, torsion-free steel surfaces exposed to thermal and chemical stress, such as chimney flues, cyclones, hot blast stacks, and flue gas flues (Not recommended for storage tanks).

Chemical Resistance:

Information on the chemical resistance is available on request.

Pot Life (20°C):

Product	Time
HEGSEL SP 662	~ 3 - 5 min

Note: Depending on the actual ambient temperature, the pot life may vary. Higher temperatures could shorten the pot life, while lower temperatures would prolong it. For further information, please consult HEGSEL!

Curing (20°C):

Load Capacity	Time
Until Further Processing	~ 24 hrs.
Thermal Load	~ 48 hrs.
Chemical Load	~ 14 days

Note: The first heating up of mortar must be done slowly.

Packaging:

The products are supplied in the following standard package sizes:

Product	Size	Package
HEGSEL SP 662 Powder	25 kg	Bag

Storage:

The products must be stored and transported in a cool and dry place. The shelf life of the products is at least the below mentioned periods:

Product	Temperature	Shelf Life
HEGSEL SP 662 Powder	20°C	24 Months

If the shelf life is passed, the materials must be tested prior to use. Higher temperatures by storage and transport would reduce the shelf life, whereas lower temperatures would extend the minimum shelf life.

1. Surface Preparation

Any unevenness in the substrate must already be levelled out.

Please refer to DIN EN 14879-1 for steel substrates. The steel surface shall be blast-cleaned to near-white metal finish, achieving a surface cleanliness of Sa 2½ in accordance with DIN EN ISO 12944-4, and a roughness grade of "Medium (G)" as defined in DIN EN ISO 8503-1, with a minimum surface roughness of Rz = 70 µm. Following blasting, appropriate measures must be taken to prevent reformation of rust and preserve the prepared surface.

2. Environmental Conditions

The specified environmental conditions must be complied with during surface preparation. During the application, the substrate must be kept completely dry. No moisture (condensate, mist, etc.) may get onto the surfaces that are to be protected. The construction site has to be protected against direct sunlight and draught.

Environmental Conditions	Value
Surface / material / air temperature	≥ +10°C up to +30°C
Optimum processing temperature	+20°C
Dew Point Distance	min. 3°C (At a relative humidity of above 70 % at least 5 °C.)

Elevated or decreased temperatures could affect the working time and consistency of the mixture. As a result, consumption and application performance may vary.

3. Application Tools

- Concrete spraying machine with blast rotor
- Delivery hose Ø 25 - Ø 32 mm

4. Mixing

Component	Parts by Weight
HEGGEL SP 662 Powder	100
Water	19

Ensure all tools are clean and free of contaminants before starting the mix.

5. Application

Processing should only begin once all application requirements are met and can be consistently maintained throughout the entire application and curing process.

For spray application, ensure there is adequate space to operate the spray equipment, at least 1.5 m in diameter.

Adjust the delivery pressure to approximately 2–3 bar to minimize excessive material loss due to rebound.

6. Consumption

The consumption of the material is approximately 2.10 kg/m² per mm of layer thickness.

The ideal layer thickness is between 10 and 20 mm.

7. Cleaning

Tools stained with uncured materials can be easily cleaned using water.

8. 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

Title	DIN	ASTM	Value	Unit
Density	DIN EN ISO 1183-1	ASTM D792	2.0	g/cm ³
Compressive Strength *	DIN EN ISO 604	ASTM C579	30	MPa
Flexural Strength *	DIN EN ISO 178	ASTM C580	10	MPa
Thermal Coefficient of Linear Expansion	ISO 11359-2	ASTM C531	1.2 x 10 ⁻⁵	1/K
Temperature Resistance	-	-	Up to 900	°C

* Mean value, determined on annealed samples.

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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 latest 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.

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