

HEGSEL® EP 671

Abrasion Resistant Epoxy Based Mortar

You Build, We Protect!

Description: HEGSEL EP 671 is a black, three-component, cold curing synthetic mortar based on an epoxy resin with very good resistance against abrasive loads.

- Characteristics:**
- Excellent adhesion to concrete and ceramic
 - Good chemical resistance
 - Nearly shrinkage-free curing

Applications: HEGSEL EP 671 is suitable as bedding and jointing mortar for wear resistant materials like ceramic bricks, split tiles, casted basalt bricks and tiles or steel plates.

Chemical Resistance: Information on the chemical resistance is available on request.

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

Pot Life (20°C):

Product	Time
Primer	Approx. 30 – 60 min
Synthetic Resin	Approx. 50 min

Curing (20°C):

Load Capacity	Time
Over workable	Approx. 24 hrs
Load	Approx. 3 – 5 days

Packaging:

The products are supplied in the following standard package sizes:

Product	Size
HEGSEL EP 670 Hardener	5 kg
HEGSEL EP 670 Hardener	20 kg
HEGSEL EP 670 Solution	20 kg
HEGSEL EP 671 Solution	20 kg
HEGSEL EP 671 Powder	25 kg
HEGSEL EP 671 CLE	25 kg
HEGSEL EP 671 DEF	0.25 kg
HEGSEL EP 671 UNI	8.4 kg

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
HEGSEL EP 670 Hardener	≤ +25°C	24 Months
HEGSEL EP 670 Solution	≤ +25°C	24 Months
HEGSEL EP 671 Solution	≤ +25°C	12 Months
HEGSEL EP 671 Powder	-	24 Months
HEGSEL EP 671 CLE	-	24 Months
HEGSEL EP 671 DEF	≤ +20°C	24 Months
HEGSEL EP 671 UNI	≤ +20°C	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

Concrete surfaces must be covered with a suitable primer and if necessary, with an additional top coat prior to application. Any unevenness on the surface needs be flattened.

1.1. 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 in the concrete shall not exceed 4%.

A mechanical treatment by abrasive blasting, high-pressure water blasting or shot blasting is recommended. After milling, flame cleaning or bush hammering the concrete surface, an abrasive blasting is also required.

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

3. Application

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

The **HEGSEL EP 670 Primer** is applied onto the substrate or onto the lined membrane firmly and uniformly by means of a floor brush, wide brush, paint brush, roller or paint pad. After-wards flame dried quartz sand is broadcasted onto the fresh primer. Broadcasting of the quartz sand can be omitted if the following layer is going to be applied within 24 hours (even immediately). **HEGSEL EP 671** is applied with a trowel onto the substrate or onto the membrane. The installation of the tiles or bricks has to be performed as cavity-free as possible, as well as with full coverage and with hollow joint method.

4. Application Tools

The following tools are essential for the application:

- Stirrer (max 300 rpm)
- Measuring cup & Mixing vessels
- Flat / wide brush / roller / paint pad
- Mortar trowel
- Grouting tool
- Miscellaneous (safety glasses, rubber gloves etc.)

5. Mixing Ratio

Pour **HEGSEL EP 670 Solution** in a mixing vessel and add **HEGSEL EP 670 Hardener** at the specified mixing ratio. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture. Then add **HEGSEL EP 671 Powder** in the recommended mixing ratio to this mixture and stirrer again. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture.

Primer	kg per Litre	Parts by Weight
HEGSEL EP 670 Solution	0.300	100
HEGSEL EP 670 Hardener	0.060	20

HEGSEL EP 671	kg per Litre	Parts by Weight
HEGSEL EP 671 Solution	0.512	100
HEGSEL EP 670 Hardener	0.093	18
HEGSEL EP 671 Powder	1.395	273

6. Consumption

Bedding and jointing

(Bed Joint 5 mm / Cross Joint 5 - 7 mm)

Material	Sizes (mm)	Coverage (kg/m ²)
Tiles	240 x 115 x 20	Approx. 14
Tiles	240 x 115 x 40	Approx. 17
Bricks	240 x 115 x 65	Approx. 22
Bricks	240 x 115 x 80	Approx. 24

7. Cleaning

Clean all equipment with **HEGSEL EP 671 UNI** or **HEGSEL EP 671 CLE** immediately after use. The cleaning is done while the material is still not hardened.

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.

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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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