HEGGEL® Pox 414

Primer and Laminating Epoxy Based Resin

You Build, We Protect!

Description:

Two-component colourless, primer and laminating resin based on an epoxy resin.

Characteristics:

- Direct adhering primer on steel and concrete surfaces
- Excellent chemical resistance
- High temperature resistance up to +160°C (dry)

Applications:

HEGGEL Pox 414 serves as a primer for **HEGGEL Mortars** products based on phenol and furan resins. An acidification is not necessary. On concrete surfaces **HEGGEL Pox 414** has the additional function of a sealing.

Application Data:

Mixing Ratio	**Parts by Weight** **Parts by Volume**	A : B = 100 : 40 A : B = 2.00 : 0.81
Pot Life		Approx. 60 min at 20°C
Application Temperature		20°C ± 5°C recommended
Curing Time	**Accessible**	Approx. 18 hrs. at 20°C
	Over Workable	Approx. 18 hrs. at 20°C
Consumption	**Steel**	Approx. 250 g/m^2
	Concrete	Approx. 300 - 350 g/m^2

Technical Data:

Title	Standard	Value	Unit
Density (Components A + B)	EN ISO 2811 (ASTM D1475)	1.14	g/cm^3
Adhesion Strength Concrete	EN ISO 4624 (ASTM D7234)	> 1.5	N/mm^2
Adhesion Strength Steel	EN ISO 4624 (ASTM D4541)	> 7	N/mm^2
Hardness Shore D	-	> 70	-
Max. Operating Temperature Liquids	-	+160	°C

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

Packaging:

The products are supplied in the following standard package sizes:

Product	Size
HEGGEL Pox 414 SOLUTION	20 kg
HEGGEL Pox 414 HARDENER	8 kg
HEGGEL Pox 414 CLE	25 kg
HEGGEL Pox 414 DEF	0.25 kg
Cleaner E-200	4 kg
Cleaner E-200	8 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
HEGGEL Pox 414 SOLUTION	≤ +25°C	24 Months
HEGGEL Pox 414 HARDENER	≤ +25°C	24 Months
HEGGEL Pox 414 CLE	-	24 Months
HEGGEL Pox 414 DEF	≤ +20°C	24 Months
Cleaner E-200	5 - 25°C	60 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

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

C-STEEL

All surfaces to be coated must be dry and free of contaminants. All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN SPEC 55684 or EN ISO 8502. Non-alloyed steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ (SSPC - SP 10; NACE No. 2) as specified in EN ISO 8501-1 and a “medium (G)” roughness degree as specified in EN ISO 8503-2 must be achieved.

A minimum surface profile of Rz ≥ 70 µm is required. To prevent flash rust, the primer must be applied immediately after the blasting and cleaning of the substrate or the component must be air conditioned to a relative humidity of ≤ 40%.

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
Dew Point Distance	min. 3K

3. Application

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

HEGGEL Pox 414 is applied twice (undiluted) by using brushes, wide brushes or rollers. If the overworking time is > 24 hours, the last coat must be sanded in fresh state with dry quartz sand (0.3 - 0.7 mm). if no sanding is carried out, it must be grinded.

4. Application Tools

The following tools are essential for the application:

- Stirrer (max. 300 rpm)
- Measuring cup & Mixing vessels
- Flat / wide brush
- Lamb’s wool roller
- Miscellaneous (safety glasses, rubber gloves etc.)

5. Mixing

HEGGEL Pox 414 SOLUTION must be well stirred before adding the **HEGGEL Pox 414 HARDENER** in the recommended ratio. The stirring of the merged components should be at least 3 minutes and must result in a homogeneous mixture. Then pour the mixture into a clean pail and mix again briefly.

6. Chemical Resistance

Information on the chemical resistance is available on request.

7. Cleaning

Clean all equipment with **Cleaner E-200** or **HEGGEL Pox 414 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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