



You Build, We Protect!

HEGGEL® Pox 460

Electrically Conductive Epoxy Resin Coating

Description:

HEGGEL Pox 460 is a pigmented, solvent-free, electrically conductive two-component epoxy resin flow coating with very good resistance to different chemicals.

The cured coating is especially suitable for commercially and industrially used areas with antistatic or electrically conductive flooring and the requirement to very good chemical resistance at the same time.

Due to the special conductive fibre technology even, pale colours are available.

Suitable for many different industrially used areas, e.g. rooms with flammable fluids and chemicals requiring explosion protection. The smooth coating is suitable for production areas, factories, laboratories and other areas with increased exposure to chemicals.

HEGGEL Pox 460 offers good resistance to chemicals, e.g. different solvents, acids, bases, oil, grease, salt, and solutions. Please note the chart for resistance and seek advice to make sure that the coating is suitable for the desired requirements.

Note: Deviation in colour tone is possible due to the conductive adjustment of **HEGGEL Pox 460**. Chemically resistant coatings might show colour alterations due to aging and wear and tear which will not affect any other properties though.

Characteristics:

- Electrically conductive
- Good resistance to chemicals
- Good resistance to solvents
- Solvent-free
- Resistant to hydrolysis and saponification
- Pale, pigmented surface finish, hard and wear resistant
- Free of deleterious substances against varnish

Applications:

- For electrically conductive, commercially used areas with special requirements to chemical resistance.
- For areas with an increased exposure to fluids and chemicals.
- For areas with special requirements to explosion protection to avoid electrostatic charging.

Application Data:

Mixing Ratio	Parts by Weight	A : B = 100 : 25			
	Parts by Volume	A : B = 100 : 41			
Processing Temperature		Minimum 10°C - Maximum 30°C (Room- and floor-temperature)			
Further Coatings		After 15 - 24 hours, but not longer than 48 hours at 20°C			
Consistency		Trowel consistency			
Consumption		Approx. 2.4 - 2.6 kg/m ²			
Electrical Conductivity		Approx. 10 ⁶ Ω (combined with HEGGEL Pox 418)			
Test Standard		DIN EN 1081, DIN EN 61340-4-1			
Minimum Thickness		1.4 - 1.8 mm			
Addition of Quartz Sand		Not permissible			
Colours		Colours upon request!			
Colour Deviation		Due to the conductive adjustment and technical reasons deviations in colour tone may occur.			
		@Temperature	10°C	20°C	30°C
Curing Time	Accessibility		24 - 36 hrs	14 - 18 hrs	10 - 14 hrs
	Mechanical Load		-	2 - 3 days	-
	Chemical Load		-	7 days	-
Processing Time			40 min	20 min	10 min

Packaging:

Hobbeck-Combi 30 kg

Storage:

12 months in sealed original containers under dry and cool conditions between 10 - 20°C. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible.

Protect from heat and freeze!

1. Build-up of Coats

- Apply base and scratch coat for a planar substrate.
- Glue **HEGGEL Copper Strips** for discharge in an imagined grid-pattern (every 6 - 8 m, up to 1 - 2 m into the room) in place. Earth-connection by an electrician according to VDE-regulations.
- Apply a lateral conductive layer using approx. 0.100 - 0.140 kg/m² of **HEGGEL Pox 418**.
- Trowel-apply the conductive wear coat **HEGGEL Pox 460** with a notched trowel, consumption approx. 2.5 kg/m².

2. Surface Preparation

The substrate to be coated has to be levelled, dry, free of dust, has to have adequate tensile and compressive strength, and be free from weakly-bonded components or surfaces. Materials impairing adhesion, such as grease, oil and paint residues must be removed using suitable methods. Please refer to the product information for the recommended HEGGEL-Base Coats, like e.g. **HEGGEL Pox 410**, **HEGGEL Pox 411**, **HEGGEL Pox 412** or **HEGGEL Pox 415**. The substrate to be coated should be prepared mechanically, preferably by shot-blasting. The surface has to be prepared accurately, saturated, and free of pores. Estimating the substrate according to the necessary sealed state may be difficult, so a scratch coat is recommended for smoothing the surface. If the substrate hasn't been sealed completely bubbles and pores may appear because of rising air. Conduct a trial if in doubt. To improve adhesion, scatter the

surface completely with approx. 0.5 - 1.0 kg/m² quartz sand, grain size 0.3 / 0.8 mm. Conductive coatings have to be applied in the required thickness of layers. Therefore it is mandatory to prepare the substrate accurately and to apply a scratch coat.

3. Mixing

Combi-trading units will be supplied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener compound B into the resin completely.

Blend with a slow speed mixer (200 - 400 rpm) for at least 2 - 3 minutes, for a material that is homogeneous and free of streaks. To avoid mixing errors it is recommended to principally empty the resin hardener mixture into a clean container and mix briefly once again ("to repot").

4. Processing / Handling

Process the material immediately after mixing with a coating knife or trowel by applying an even layer on the prepared surface. The product is adjusted with an optimum of air venting. To upgrade the moistening of the substrate, optimizing the flow-properties and removing any air blows, it is recommended to roll with a spiked roller. Use the spiked roller time-delayed, after 10 - 15 minutes. Divide working areas before starting work and always work "fresh-in-fresh" to avoid any shoulders. It is not recommended to scatter electrically conductive coatings because the electrical conductivity may be reduced. Floor -and air- temperature must not fall below 10 °C and humidity must not exceed 75 %. Material has to have room

temperature for processing. The difference in dew- point temperature and temperature of the substrate has to be more than 3 °C so the curing will not be disturbed. If a dew-point situation occurs adhesion may malfunction, curing may be disturbed, and spotting may occur. Exposure to water and chemicals has to be avoided for the first 7 days. Curing time applies to 20°C. Lower temperature may increase; higher temperature may decrease the curing and processing time. Stay within the recommended conditions during processing. If working conditions are not complied with, deviations in the described properties may occur in the end product.

5. Cleaning

To remove fresh contamination and to clean tools use **Cleaner V20** or **V40** immediately. Hardened material can only be removed mechanically.

6. Safety Measures

The product is subject to the hazardous material, operational safety, and transport regulations for hazardous goods. Refer to the DIN-Safety Data Sheet and the information labelled on the containers!

GISCODE: RE 1

7. Indication of VOC-Content

(EG-Regulation 2004/42)

Maximum Permissible Value 500 g/L (2010,II,j/lb) Ready-for-use product contains < 500 g/L VOC.

Technical Data

Title	Standard	Value	Unit
Viscosity (Components A + B)	DIN EN ISO 3219 (23°C)	2950	mPas
Solid Contents	HEGGEL-Method	> 99	%
Density (Components A + B)	DIN EN ISO 2811-2 (20°C)	1.60	kg/L
Weight Loss	After 28 days	0.3	Weight %
Water Absorption	DIN 53515	< 0.2	Weight %
Shore-Hardness D	DIN 53505 (7 days)	69	-
Abrasion (Taber)	ASTM D4060	55	mg
Bleeder Resistance	DIN EN 61340-4-1	Approx. 106	Ω

Note: Values achieved in sampling are average values. Variation in product specification is possible.

HEGGEL Pox 460; Revision No: 1.10 / Last Revision Date: 18.09.2023

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.

HEGGEL GmbH

Hutropstr. 60
45138 Essen
Germany

Tel: +49 201 17003 270

Fax: +49 201 17003 277

E-Mail: info@heggel.de

Web: www.heggel.de