CHEMORESIN
eine Marke der KLB Kötztal Lacke + Beschichtungen GmbH

CHEMORESIN CR 920 EL+

Electrically conductive 2-component reactive resin self-levelling coating on the basis of a special polyurethane with high chemical resistance

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK2006-50	Bucket combo	10.00 kg	30
AK2006-25	Hobbock combo	22.00 kg	18

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 120
Mixing ratio parts by volume	A : B = 100 : 170
Processing time	10 °C / 50 °F: 40 minutes 20 °C / 68 °F: 30 minutes 30 °C / 86 °F: 20 minutes
Processing temperature	Minimum 10 °C / 50 °F – Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F: 24 - 28 hrs. 20 °C / 68 °F: 18 - 22 hrs. 30 °C / 86 °F: 16 - 20 hrs.
Curing	3 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Further coatings	Smooth coverings cannot be overlaid without intermediate grinding.
Consumption	Top coat: approx. 1.8 - 2.2 kg/m² with a 1.5 mm layer thickness
Layer thickness	approx. 1.5 mm
Colours	Cream, curry, yellow, dark grey, medium grey, light grey, green, red, luminous red and black. Attention: RAL colours are not available.
Shelf life	6 months (originally sealed) – **Protect from frost!**

Product description

CHEMORESIN CR 920 EL+ is an innovative, electrically conductive 2-component reactive resin self-levelling coating based on a special polyurethane with significantly higher chemical resistance than conventional epoxy resin or polyurethane coatings.

CHEMORESIN CR 920 EL+ can be used to produce smooth coatings on floor surfaces in the chemical or pharmaceutical industries, in biotechnology, paint strippers, in electroplating plants, paint shops, and many other areas. Existing coverings of epoxy resin or PU-concrete can be given a top coat of **CHEMORESIN CR 920 EL+** after the necessary surface preparation. Seek advice if required!

The cured electrically conductive coating is particularly suitable for preventing static charge in commercial and industrial areas with special requirements to explosion protection. As **CHEMORESIN CR 920 EL+** is significantly more chemical-resistant than conventional coatings, the product is especially useful in areas that are, among other things, subject to high chemical loads in various industries.

CHEMORESIN CR 920 EL+ has excellent resistance to various concentrated acids and alkalis, organic acids, solvents, oils and greases. They are also resistant to a wide range of other chemicals. The tested chemicals can be found in the enclosed resistance lists. Other chemicals can be tested on request.

Due to its composition, the product can only be supplied in a limited range of colours. The colour stability of the coating cannot be guaranteed. The technical and chemical properties are not affected by any changes in colour.

CHEMORESIN coatings are special technical coatings and are not intended to provide a decorative appearance!

Area of application

- Smooth, electrically conductive coating with excellent chemical resistance for use in the chemical or pharmaceutical industries and in biotechnology.
- For preventing static charge in areas with high requirements to explosion protection.
- For floor surfaces with increased demands on chemical resistance
- For floors in paint shops and lines

Product features

- electrically conductive for explosion protection
- high chemical resistance
- good processing properties
- novel combination for technical applications
- consistent to hydrolysis and saponification
- resistant to abrasion and wear
- high mechanical resistance

Technical data

Viscosity - Component A+B	approx. 1000	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	approx. 76	%	KLB method
Density - Component A+B	approx. 1.34	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	% w/w	DIN 53515
Shore-hardness D	77	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	approx. 938	mg	ASTM D4060 (H22/1000)
Electrical resistance	(combined with EP 799 Ableitgrund) < 10^6	Ohm	DIN IEC 61340-5-1/2 DIN EN 61340-4-1

The values established in tests are average values. Deviations from the product specification may occur.

Included in systems

- System I6 - KLB CHEMORESIN PROTECT CONDUCTIVE

Please visit our website to get more information about our KLB systems: www.klb-koetztal.com

Tests

The following external test certificates are available:

- Fire behaviour classification according to DIN EN 13501-01: 2010-01: B_{fl}-s1
- LABS-compliant according to PV 3.10.7. (VW test)
- Product is compliant with DIN EN 13813: 2003-01

Note:

Please ask for the tested system build-up!

Build-up of coats

Smooth coating

- Mechanically prepare the substrate, e.g. by shot blasting.
- Prime with **EP 51 RAPID S, EP 52 Spezialgrund, EP 52 RAPID** or **EP 55**. Apply the freshly mixed material with a scraper, trowel or nylon roller, then re-roll for an even distribution; consumption approx. 0.3 - 0.4 kg/m².
- Scratch coat to produce an even substrate, e.g. with **EP 51 RAPID S, EP 52 Spezialgrund, EP 52 Rapid** or **EP 55** and mixed sand **KLB-Mischsand 2/1** in a mixing ratio of 1 : 0.8 parts by weight; consumption of mixture approx. 0.8 - 1.3 kg/m².
- If necessary, the concave or triangular covings can now be installed. These can be made with **EP 51 RAPID S, EP 52 Spezialgrund, EP 52 RAPID** or **EP 55** and mixed sand **KLB-Mischsand 1** in a mixing ratio of 1 : 5 - 8. The viscosity of the material is adjusted by adding 1 - 1.5% of suspending agent **KLB-Stellmittel 5 FT** (or optionally, suspending agent **KLB-Stellmittel 3 Super**). Alternatively, the ready-mixed product **EP 85 Fein** can be used.
- Glue KLB copper bands for discharge in an imagined grid-pattern in place into the room – every 6 - 8 m, up to 1 - 2 m. Earth connection by an electrician based on VDE regulations.
- Apply the conductive coat **EP 799 Ableitgrund** with a nylon roller (pile height 8 mm), consumption approx. 0.100 - 0.140 kg/m².
- **CR 920 EL+** is applied once the primer has cured. Process the material immediately after mixing and apply a uniform, thick layer with a scraper or toothed trowel, e.g. toothed blade S3, consumption approx. 1.8 - 2.2 kg/m².
- After approx. 5-10 minutes, go over the fresh surface with the steel spiked roller.

Substrate

The substrate to be coated must be even, dry, dust-free, sufficiently resistant to tension and compression, and free of weakly bonded components or surfaces. Materials reducing adhesion, such as grease, oil and paint residues, must first be removed with suitable measures. Observe the information issued by trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S, and the notes provided in the product information for the recommended KLB primer. The substrates to be coated must be prepared mechanically, preferably by shot blasting. The prepared area must be saturated, pore-free and primed carefully. It is often difficult to judge the necessary pore-free condition of substrates. It is therefore recommended that a scratch coat be applied to smooth the surface. If the substrate has not been primed to be pore-free, bubbles and pores can develop in the coating due to air rising from the substrate. If in doubt, we recommend processing a sample area.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume to contain the entire packaging unit. Briefly mix Component A. Empty all of the hardener B into the resin package. Blend with a slow speed mixer (200-400 rpm) for 2-3 minutes until a homogeneous, streak-free compound forms. To prevent mixing errors, empty ("repot") the entire resin/ hardener mixture into a clean container and mix it once again briefly.

Processing

Process the material immediately after mixing with a squeegee or toothed trowel with Toothed Blade S3 by skimming a uniformly thick layer over the prepared substrate. The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to

remove remaining air bubbles. Rolling with the steel spiked roller should be done after a delay of 5 - 10 minutes. To work seamlessly, always work "fresh-in-fresh" and define work areas before starting.

Chemoresin CR 920 EL+ is suitable for creating coverings for technical use.

The floor and air temperatures must not fall below 10 °C / 50 °F and the humidity must not exceed 75%. The material to be processed must be at room temperature during processing. During processing and hardening, the difference between the dew-point temperature and the temperature of the substrate must be greater than 3 °C / 3 K / 5.4 °F. If a dew-point situation arises, regular curing will not be possible with hardening problems and spotting to occur. Exposure to water and chemicals should be avoided during the first 7 days. The specified curing times apply for 20 °C / 68 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times. Ensure the recommended conditions during the curing time. If the working conditions are not complied with, the technical properties of the end product may deviate from those specified.

Cleaning

Tools: to clean the equipment, we recommend **VR 28** or **VR 40**. Hardened material can only be removed mechanically.

Floor coating: separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers. During application, impurities can cause an increase in resistance and therefore, affect the discharge capacity. Please follow our cleaning recommendations in case of doubt.

Storage

Store in a dry, frost-free location. Ideal storage temperature: 15 - 25 °C / 59 - 77 °F. Bring to a suitable working temperature before application. Tightly re-seal opened packages and use up the content within 1 to 3 days.

Special remarks

This product is regulated by the German Ordinance on Hazardous Substances (GefStoffV), the German Ordinance on Industrial Safety and Health (BetrSichV), and transport regulations for hazardous goods. The necessary information is contained in the DIN Safety Data Sheet. Observe all identification information on the container label!

GISCODE: PU50

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.

CE marking

CE

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CR920EL+-V1-082024	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B2,0-AR0,5-IR4	
Fire behaviour	E_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0,5
Adhesive tensile strength	B 2,0
Impact resistance	IR 4

Please consider the latest version of this product information on our website.

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