ELECTRICALLY HIGHLY CONDUCTIVE 2-COMPONENT EPOXY RESIN BASE COAT SOLVENT-FREE USE IN COMBINATION WITH EP 211 ESD FOR ESD-COATINGS

DESCRIPTION

EP 799 ESD is a product to be used in combination within the system. Suitable for defined electrically conductive coatings. Exclusively used in combination with EP 211 ESD. EP 799 ESD consists of an easy to process and economically 2-component epoxy resin emulsion which may be applied with a roller. Because of its composition a good interlayer adhesion is achieved and solvents are not in use

RECOMMENDED FOR

Typical areas of application are:

- As guiding bed in combination with EP 211 ESD for ESD-suitable flooring. Note the product information for EP211 ESD!

ADVANTAGES

- Aligned with KLB-SYSTEM EPOXID EP 211 ESD
- Good processing conditions
- Solvent-free
- Economic consumption
- Resistant to hydrolysis and saponification
- When used in combination within the system, suitable for ESD-coatings
- Free of deleterious substances against varnish

TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
Viscosit (Components A+B)	700 mPa s	EN ISO 3219 at 73.4 oF (23 oC)
Density (Components A+B)	1.10 kg/lt	EN ISO 2811-2 at 68 oF (20 oC)
Color	Black	
Solid content	> 45%	KLB - Method
Bleeder resistance	*105 Ohm*	*DIN EN 61340-4-1/-5-1/2*
Electrical conductivity	*Adjusted for requirements in ESD-areas as well as VDE 0100-600*	
Test standard	*DIN EN 61340-4-1, DIN EN 61340-5-1/2*	DIN EN 196/1
Processing time at 50 oF (10 oC)	75 minutes	
Processing time at 68 oF (20 oC)	60 minutes	
Processing time at 86 oF (30 oC)	35 minutes	
Processing temperature	50 oF (10 oC) minimum room and floor temperature	
Curing time at 50 oF (10 oC)	24-36 hrs (Accessibility)	
Curing time at 68 oF (20 oC)	18-24 hrs (Accessibility)	
Curing time at 86 oF (30 oC)	14 18 hrs (Accessibility)	
Curing	2-3 days for mechanical load at 68 oF (20 oC 7 days for chemical resistance at 68 °F (20 oC)	
Further coatings	*After 14-18 hours, but not longer than 48 hours at 68 oF (20 oC)*	

**The aforementioned results are related to average laboratory test results. In reality the climate changes, such as temperature moisture and surface porosity may change these results.*

DIRECTIONS FOR USE

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. Suitable surfaces are concrete C20/25 (B25), cement screed CT-C35-F5 (ZE 30), as well as other adequately sound surfaces. The substrate has to have adequately high strength for the proposed occupational use. Coating of mastic asphalt with epoxy resin is not recommended. The surface to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength must then be a minimum of 1.5 N/mm2. For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded. Please refer to the advice issued by the trade associations, e.g. the current edition of

BEB-worksheets KH-0/U and KH- 0/S, as well as the product information for the recommended KLB-Base Coats, like e.g. EP 30, EP 50, EP 51 RAPID S, and EP 52 Spezialgrund. The prepared surface has to be primed 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. The conductive coating must be applied in an even thickness that is why it is mandatory to prepare the substrate thoroughly. Apply the guiding bed after affixing the copper bands within the recommended processing time of the base coat.
Mixing: Single packages of the components need to be measured in the precise mixing ratio. Combi-trading units will be sup- plied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener into the resin completely. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes, for a material that is homogeneous and free of streaks. To avoid mixing errors it is recommended to empty the resin/ hardener-mixture into a clean container and mix briefly once again („to repot“).To achieve an optimum consistency water may be added, up to 10 % mixing the components.

MIXING RATIOS:
A:B = 1:4 parts by weight
A:B = 1:4.2 parts by volume

APPLICATIONA:
Apply the guiding bed on the surface immediately with a roller after mixing. Watch for an even consumption. Apply evenly thin and of the mixing on the prepared substrate. To avoid soiling of the walls it is recommended to apply the black guiding bed in a distance of 5 - 10 cm. Before applying the conductive coating observe a sufficient curing period of 12-24 hours. Floor and air-temperature must not fall below 59 °F (15 °C)
and/or humidity must not exceed 75 %. The difference in floorand room-temperature must be less than 37.4 °F (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. Curing time applies to 68 °F (20 °C). Lower temperature may increase, higher temperature may decrease the curing and processing time. If working conditions are not complied with, deviations in the described technical properties and conductance may occur in the end product.
Build-up of Coats: Apply a base coat and scratch coat for a planar surface. Glue in the copper bands KLB-Kupferbänder for discharge in an imagined gridpattern in place into the room – every 6 - 8 m, to approx. to 1 - 2 m. Earth connection by an electrician according to VDEregulations. Apply a cross-conductive coat KLB-SYSTEM EPOXID EP 799 ESD, consumption approx. 0.100 - 0.140 kg/m².

COVERAGE
Approx. 0.100 – 0.140 kg/m2

SPECIAL CONSIDERATIONS
To remove fresh contamination and to clean tools, use thinners VR 24. Hardened material can only be removed mechanically. 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 on the labelled containers!
GISCODE: RE 1
Indication of VOC-Content: (EG-Regulation 2004/42),
Maximum Permissible Value 140 g/l (2010,II,i/wb): Ready-for use product contains < 140 g/l VOC.
Contact PENETRON ROMANIA. for additional information, regarding your project.

PACKAGING
EP 799 ESD is available in 2+8 kg containers.

STORAGE / SHELF LIFE
Store in dry and frost-free conditions. Ideal storage temperature is between 50 - 68 oF (10 - 20 oC). Bring to a suitable working temperature before application. Tightly reseal opened containers and use the content as soon as possible. When properly stored in a dry place in unopened and undamaged original packaging, shelf life is 12 months. Protect from frost!

SAFE HANDLING INFORMATION
Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves, mask and goggles should be worn.
KEEP OUT OF REACH OF CHILDREN

WARRANTY – DICLAIMER

BEST IMPORT PRODUCTS PENETRON. warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to BEST IMPORT PRODUCTS PENETRON. shall be limited to replacement of the material proven to be defective, and BEST IMPORT PRODUCTS PENETRON shall in no case be liable otherwise or for incidental or consequential damage.

BEST IMPORT PRODUCTS PENETRON MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. User shall determine the suitability of the product for its intended use and assume all risks and liability in connection therewith.

BEST IMPORT PRODUCTS PENETRON may particularly differentiate its versions of the product's data sheet compared with those of PENETRON INTERNATIONAL LTD or respective PENETRON companies worldwide. These changes are due to text formatting, different application weathering and procedures or different product names and aim at the optimal consumer information.

CE

KLB Kötztal Lacke + Beschichtungen GmbH
Günztalstraße 25
FRG-89335 Ichenhausen
14
EP799ESD-V1-022014
DIN EN 13813:2003-01
Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-NPD-NPD
Fire behavior: Efl-s1
Emission of corrosive substances: SR
Wear resistance BCA: NPD
Adhesive tensile strength B 1.5
Impact resistance: NP

BEST IMPORT PRODUCTS PENETRON
Departament Tehnic
Tel: 0368 734 003
tehnic@penetron.ro
Adresa : Complex Duplex 2
Str. Fundatura Harmanului,
Brasov
www.penetron.ro