READY TO USE 2-COMPONENT EPOXY RESIN PRIMER FOR SURFACE PROTECTION SYSTEMS (OS 8, 11a/b) IN ACCORDANCE WITH DAFSTB GUIDELINES

DESCRIPTION

EP 5530 is a 2-component epoxy resin primer for preparing substrates for subsequent car park coatings. EP 5530 is used as a ready to use primer, as well as to even out roughness and for levelling. Its preferred use is for subsequent scattered coatings where sufficient levelling is achieved for the subsequent coatings, e.g. OS 8 coatings with EP 216. Suitable as a primer on all moisture-resistant, dimensionally stable substrates, such as concrete and cement screed. The product has very good compressive strength and is suitable for all car park surface protection system applications. However, it can also be used for smooth coatings, which requires double application for normally absorbent substrates. If a levelling compound has to be applied to even out higher levels of roughness, approx. 20 – 50 % of 0.1/0.3 mm fire-dried quartz sand can be added. EP 5530 provides a solid basis for all subsequent surface protection systems and coverings, hardens through quickly without shrinkage. The product has good compressive strength and is suitable for all parking, industrial and commercial flooring applications.

RECOMMENDED FOR

Typical areas of application are:

- As primer and to even out roughness, prior to the application of surface protection systems.
- As a primer and levelling compound, prior to the application of scattered coatings and coatings.
- Economical and fast solution for small areas.

ADVANTAGES

- Ready to use
- Hardens quickly and can be coated over
- High bond strength

TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
Viscosity (Components A+B)	1200 mPa s	EN ISO 3219 at 73.4 ºF (23 ºC)
Density (Components A+B)	1.4 kg/lt	EN ISO 2811-2 at 68 ºF (20 ºC)
Color	Clean - Yellowish	
Solid content	> 99 %	KLB-Method
Shore-hardness D	87	DIN 53505 (after 7 days)
Adhesive tensile strength	>1,5 N/mm^2	DIN EN 1542
Processing time at 50 ºF (10 ºC)	45 minutes	
Processing time at 68 ºF (20 ºC)	25 minutes	
Processing time at 86 ºF (30 ºC)	15 minutes	
Processing temperature	Minimum temperature 50 ºF (10 ºC) (room and floor)	
Curing time at 50 ºF (10 ºC)	12-14 hrs (Accessibility)	
Curing time at 68 ºF (20 ºC)	6-8 hrs (Accessibility)	
Curing time at 86 ºF (30 ºC)	5-6 hrs (Accessibility)	

PRODUCT DATA SHEET

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TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
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 curing, but no longer than 24 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 must be even, dry, dust-free, sufficiently resistant to tension and compression and free from weakly bonded components or surfaces. Materials impairing adhesion, such as grease, oil and traces of paint, should be removed using suitable measures. C20/25 concrete, CT-C35-F5 (ZE30) cement screed and other sufficiently firm substrates are suitable for coating. The substrates must have a sufficiently high strength for the intended type of use. The substrates, which are to be coated, should be mechanically prepared, preferably using shot blasting. Their absorbency must be checked. Their surface strength must be at least 1.5 N/mm². The moisture content must not exceed 4.5 CM-% for concrete. Rising damp must be permanently excluded. Please refer to the information in the DAfStb guidelines (maintenance guidelines) as well as the advice issued by trade associations e.g. the current version of the BEB worksheets KH-0/U and KH-0/S.

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 component B into the resin completely. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2-3 minutes, for a homogeneous mixture, 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.

Processing must take place immediately after mixing!

Mixing ratios:

A:B = 5:1 parts by weight
A:B = 100:33 parts by volume

Processing/Handling:

Processing takes place immediately after mixing, the resin is distributed within the area to be treated and is squeegeed in an even layer using a trowel, a smoothing trowel, a rubber squeegee or an offset squeegee. The path is always overlapped so that the surface is evenly wetted. Consumption should be checked. Redistribute us- ing a roller if necessary. Apply subsequent layers within the recommended time frame. If the subsequent coating is not applied within the processing time frame, the primer/ levelling compound must be sanded off.

Floor and air temperature must not fall below 50 °F (10 °C) and/or humidity must not exceed 75 %. The difference between floor and room temperature must be less than 37.4 °F (3 °C), so as the curing will not be disturbed. If a dew- point situation occurs adhesion may malfunction, curing may be disturbed and spotting may occur. Water and chemical loading should be avoided during the first 7 days. The specified hardening times apply for 68 °F (20 °C). At lower temperatures the processing and curing times are longer, at higher temperatures they are shorter. If working conditions are not complied with, deviations in the described technical properties may occur in the end product.

Build-up of Coats:

Priming for surface protection systems in accordance with DAfStb guidelines OS 11 a/b

- Prepare the substrate preferably using shot blasting, then vacuum thoroughly.
- Prime with EP 5530. Application is carried out in an even layer using a trowel, smoothing trowel, a rubber squeegee or an offset squeegee. Consumption ap- prox. 0.3 - 0.6 kg/m2.
- Alternatively, apply EP 5520, consumption approx. 0.3 - 0.4 kg/m2, as a primer.
- The fresh surfaces should be covered with natural quartz sand with a grain size of 0.3/0.8 mm (or 0.6/ 1.2 mm) in order to ensure optimum adhesion to the PU 5550 floating / wear layer.
- For further construction of OS 11a/b coatings refer to the PU 5050 and PU 5560 product information.

Priming of a surface protection system in accordance with DAfStb guidelines OS8

- Apply the prefilled primer EP 5530, consumption approx. 0.3 - 0.6 kg/ m^2.
- Alternatively, apply the primer EP 5520, consumption approx. 0.3 - 0.4 kg/ m^2.
- Optional: Open scattering with quartz sand, grain 0.3 - 0.8 mm, consumption approx. 0.5 - 1.0 kg/ m^2.
- For the further construction of OS 8 coatings in conjunction with wear coat and top sealer EP 216 Universal, please refer to the product information of EP 216 Universal.

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Primer/levelling compound for subsequent self-levelling coatings

- Experience has shown that the first primer coat for subsequent flow coatings should be applied using an unfilled primer, such as EP 5520.
- EP 5530 is also suitable for substrates with normal absorbency, in accordance with the following procedure:
- Evenly apply EP 5530 prime coating using a trowel, rubber squeegee or surface squeegee. Consumption approx. 0.3 - 0.6 kg/ m^2 depending on absorbency and roughness. Roll again using a nylon roller for even distribution. In order to obtain non-porous surfaces for the subsequent self-levelling coating, a further layer (consumption approx. 0.6 kg/ m^2) or a levelling compound (consumption approx. 0.7 - 1.0 kg/ m^2) must always be applied. This can be achieved by adding 0.1/0.3 mm quartz sand (20 to 50% by weight, depending on layer thickness and temperature). The surface to be coated must be free from pores, so that no bubbles form in the coating.

COVERAGE

Primer: 0.3 – 0.4 kg/m^2 depending on the substrate's roughness
Scratch coat: 0.5 – 0.6 kg/m^2 depending on the substrate's roughness whilst adding 20-50% of 0.1/0.3 mm quartz sand (depending on temperature), if necessary.

SPECIAL CONSIDERATIONS

To remove fresh contamination and to clean tools, use thinners VR 28 or VR 33 immediately. 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: PU 30

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.

Contact PENETRON HELLAS S.A. for additional information, regarding your project.

PACKAGING

PU 5580 is available in 10+2 kg and 25+5 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 re-seal 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.

SAFE HANDLING INFORMATION

Avoid skin and eye contact. If contact is made, flush areas with plenty of water and seek medical advice. Protective gloves, mask and goggles should be worn. For further information please refer to Safety Data Sheet. PENETRON HELLAS S.A. has recently updated Safety Data Sheet on the safe use of PENETRON® products. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. KEEP OUT OF REACH OF CHILDREN.

CERTIFICATION

Test report (system test): Performance test for the use as a surface protection system/product according to DIN EN 1504-2 "Products and systems for the protection and maintenance of concrete supporting structures, part 2: surface protection systems for concrete; German version EN 1504-2:2004", in consideration of DIN V 18026, "Surface protection systems for concrete from products following DIN EN 1.5.2004-2" and in accordance with the DAfStb guidelines "Protection and maintenance of concrete components".

Statement of performance in accordance with Annex III of (EU) Regulation n. 305/2011 (construction product regulation), for the single products.

Fire behavior classification according to DIN EN 13501-01:2010-0.

Please ask for the tested system structure.

CE

KLB Kötztal Lacke + Beschichtungen GmbH
Günztalstraße 25
FRG-89335 Ichenhausen
18
EP5530 -V1-092018
DIN EN 13813:2003-01
Synthetic resin screed mortar
DIN EN 13813: SR-B2.0-AR0.5-IR6
Fire behavior: C_{fl}-s1
Emission of corrosive substances: SR
Wear resistance BCA: AR 0.5
Adhesive tensile strength B 2.0
Impact resistance: IR 6

1119
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18
EP5530-V1-052018
DIN EN 1504-2:2004
Surface protection products coating
DIN EN 1504-2:ZA.1d, ZA.1f, ZA.1g
Abrasion resistance: Complied with
CO2 permeability: SD > 50m

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Water vapor permeability: Class III
Capillary water absorption and water permeability: < 0.1 kg/m² * h0.5
Resistance to increased chemical excavation: Complied with
Resistance to impact: Class I
Tear-test for adhesive strength evaluation: > 2.0 N/mm²
Fire behavior: C_{fl}-s1
Compatibility to temperature change: Complied with
Crack bridging ability: B 3.2 (-20°C)
Grip: Class III

WARRANTY – DISCLAIMER

PENETRON HELLAS S.A. warrants that its products are manufactured under certified ISO Standard procedures, are of excellent quality and shall be free from material defects and contain all components in their proper proportion. Should any of the products be proven defective, the liability to PENETRON HELLAS S.A. shall be limited to the replacement of the material proven to be defective, since the standard application procedures have been met and the suitability of the product for the particular application has been proven. PENETRON HELLAS S.A. makes no warranty as to merchantability of fitness for a particular purpose. User, after contacting the distributor of the product, shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. While every care has been taken, the information provided in this product's data sheet make no part of any contract. All recommendations, technical data and test data contained in this product's data sheet are based upon the results of control laboratory tests or in actual field tests. However, PENETRON HELLAS S.A. makes no warranty of any kind, concerning these data. In any case, these data are given in good faith based in the PENETRON HELLAS S.A. experience, till the publication of this sheet. Due to variance in storage, handling and applications of the materials, PENETRON HELLAS S.A. accepts no liability for the results obtained. It is suggested that potential users try small applications to determine the suitability of each individual product for their specific requirements. The users should always refer to the most recent edition of the product's data sheet. PENETRON HELLAS S.A. 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.

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