PENETRON ADVANCED WATERPROOFING & PROTECTION SYSTEMS

TWO COMPONENT EPOXY RESIN AS BASE COAT FILLER AND REACTIVE RESIN MORTAR

DESCRIPTION

EP 30 is an unfilled, low-viscosity, and non-pigmented epoxy resin for base coats, scratch coats, and heavy-layered levelling screeds. EP 30 features good wettability properties and may be filled up to a high grade. Nevertheless it offers good processing properties. EP 30 cures very well and consistently, and features good adhesion to mineral substrate. To improve interlayer adhesion it is basically re-commended to scatter with fire-dried quartz sand (grain size 0.3/0.8mm

RECOMMENDED FOR

- Base coat before the application of coatings.
- Scratch coat for sealing and levelling.
- Repair-, levelling-, and underlayment mortar.
- Assembly- and grouting work.

ADVANTAGES

- “Total Solid” according to Giscode (test method of the Deutsche Bauchemie, German construction
- chemistry association)
- Solvent free
- Economical
- Low shrinkage
- All-purpose
- Resistant to hydrolysis and saponification
- Low viscosity
- Free of deleterious substances against varnish

TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
Viscosit (Components A+B)	750 mPa s	EN ISO 3219 at 73.4 oF (23 oC)
Density (Components A+B	1.09 kg/lt	EN ISO 2811-2 at 68 oF (20 oC)
Color	Clean - Yellowish	
Solid content	> 99 %	KLB - Method
Weight loss	0.3 % after 28 days	
Water absorption	< 0.2 %	DIN 53495
Bending tensile strength	> 25 N/mm2	DIN EN 196/1
Compressive strength	> 70 N/mm2	DIN EN 196/1
Shore-hardness	*D* 80 after 7 days	DIN 53505
Adhesive tensile strength	> 1.5 N/mm2	DIN EN ISO 1542
Processing time at 50 oF (10 oC	70 minutes	
Processing time at 68 oF (20 oC)	40 minutes	
Processing time at 86 oF (30 oC)	20 minutes	
Processing temperature	50 oF (10 oC) minimum room and floor temperature	

Characteristic	Test Result	Test Method
Curing time at 50 oF (10 oC)	24-48 hrs (Accessibility)	
Curing time at 68 oF (20 oC)	12-15 hrs (Accessibility)	
Curing time at 86 oF (30 oC)	8-12 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	After curing, but not longer than 48 hours at68 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. 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. Reconstructing floors may need special procedures. Obtain technical advice.

Mixing: Single packages of the components need to bemeasured 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“)

Producing scratch coats and mortar:
Scratch coats:
1.0 kg EP 30 0.5 - 0.8 kg KLB-Mischsand 2/1 (alternatively QUARTZ SAND MIX 0.10 – 0.45 MM)
Epoxy resin mortar:
1.0 kg EP 30 8.0 - 12.0 kg KLB-Mischsand 1
Before adding additives, premix the binding agent. Then add the additive. The amount of the sand blend to be added depends on the desired texture and consistency.

Mixing ratios:
A:B = 3:1 parts by weight
A:B = 100:37 parts by volume

APPLICATION

Base coat: Processing the material as a base coat takes place immediately after mixing, using a coating knife, trowel, or nylon roller. Apply an evenly closed coat on the substrate. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended to achieve a compact surface.
For optimum adhesion scatter the fresh surface with approx.0.8 kg/m² quartz sand (grain size 0.3/0.8 mm). This is mandatory, if the subsequent coatings will be applied later
than 48 hours after base coat application

Scratch coat: For smoothing the substrate, as well as pore sealing, apply a scratch coat. Use a trowel, metal-, or rubber coating knife. The consistency has to be adjusted according to the absorbency of the substrate, and set so the material may run true.

Epoxy resin mortar: EP 30 may be used as repair, underlayment, and levelling mortar. Use the special resin EP 150 for industrial mortar coatings. Process immediately after mixing. Pull off with a lath, compact, and smooth with a smoothing trowel.Floor and air-temperature must not fall below 50 °F (10 °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.

COVERAGE

Base coat: Approx. 0.3 – 0.4 kg/m2
Scratch coat: Approx. 0.4 – 0.6 kg/m2
Mortar: Approx. 0.150 – 0.300 kg/m2 for each mm of layer

SPECIAL CONSIDERATIONS

We advise against the „gumming“ of screed joints/flat joints with pure or with thixotropic agent filled epoxy resin. In thecourse of time, these areas will begin to show on the surface.
For the application, use always the KLB-Primer resin in combination with quartz sand e.g. KLB-Mischsand 2/1 (alternatively QUARTZ SAND MIX 0.10 – 0.45 MM) or KLBMischsand 1. For this, we recommend to add at least 1 – 3 parts by weight of filler. To remove fresh contamination and to clean tools, use thinners VR 24 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: (05/2018 modification) RE 30 Indication of VOC-Content: (EG-Regulation 2004/42). Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-foruse product contains < 500 g/l VOC. Contact PENETRON ROMANIA. for additional information, regarding your project.

PACKAGING

EP 30 is available in 22.5+7.5 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 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.

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. For further information please refer to PENETRON ROMANIA
KEEP OUT OF REACH OF CHILDREN.

WARRANTY – DICLAIMER

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KLB Kötztal Lacke + Beschichtungen GmbH
Günztalstraße 25
FRG-89335 Ichenhausen
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DIN EN 13813:2003-01
Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-AR0.5-IR5
Fire behavior: Efl-s1
Emission of corrosive substances: SR
Wear resistance BCA: AR 0.5
Adhesive tensile strength B 1.5
Impact resistance: IR 5

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