EPOXY RESIN PRIMER/BONDING AGENT

EH1 EPOXY RESIN PRIMER/BONDING AGENT
EH115 EPOXY RESIN PRIMER/BONDING AGENT

TEST CERTIFICATES AND SUPPORTING DOCUMENTS

› Product acc. to EN 13813 "Synthetic resin primer"
› Product acc. to EN 13813 "Synthetic resin coating"
› Company certification acc. to DIN EN ISO 9001:2015

PROPERTIES

› Bonding agent for EP mortar and EP coatings with the corresponding additives (**EH1**)
› Can be universally applied to concrete, mortar and steel surfaces (**EH1**)
› Bonding agent for EP systems and cement mortar (**EH1**)
› High adhesion on moist substrates or substrates with a residual moisture (residual moisture < 8 %) (**EH115**)
› Epoxy-resin based 2-component reactive plastic material
› Solvent-free, unfilled and non-pigmented
› Low viscosity and high capillary action
› Penetrates into the finest of pores and capillaries, develops high adhesive strength and bonds strongly with the concrete substrate
› When cured, impermeable to water, sea water and waste water, as well as a large number of alkaline solutions, diluted acids, saline solutions, mineral oils, lubricants, fuels, and a large number of solvents
› The binding agent might cause colours to slightly change over time if exposed to UV radiation

AREAS OF APPLICATION

› Primer for solvent-free EP coating systems applied to concrete, mortar, cement screed and steel
› Sealant for cement-bound substrates such as in workshops, industrial halls, car parks etc.
› Suitable for increasing the strength of concrete and mortar surfaces
› Bonding agent in particular for coatings applied to absorbent substrates
› Top coat for creating an easy-to-clean surface

TECHNICAL DATA

TYPE				EH1	EH115
Colour				transparent, slightly yellowish	transparent, slightly yellowish
Mixing ratio			Ratio by weight	2:1	2:1
Density (23 °C/50 % rel. air humidity)			kg/m³	1,100	1,100
Viscosity approx.		at 10 °C	mPa · s	1,000–1,500	1,000–1,200
		at 20 °C	mPa · s	500–700	600–700
Processing time approx.		at 10 °C	min	60–75	60–75
		at 20 °C	min	45	45
		at 30 °C	min	20–30	30–35
recoatable		at 10 °C	after h	24–36	15–30
		at 20 °C	after h	10–20	10–20
fully cured (100 %)		at 20 °C	after h	7	7
Minimum substrate temperature for application			°C	+10	+10
Material consumption	Primer* approx.		g/m²	300–500	300–500
	Sealing (2x) approx.		g/m²	600–800	600–800
	Top coat approx.		g/m²	250–400	250–400
Solid			%	100	10
Adhesive pull strength			N/mm²	Concrete failure	Concrete failure
Packaging			kg container	1, 12, 30	1, 12

* depending on substrate properties

Storage: 12 months. Cool, dry, free from frost. Unopened in its original container.
Hazardous material: Hazardous material, observe safety data sheet

The EU VOC content threshold values for these products (Cat. II A/j) when ready for use are: 550 g/L (2007) / 500 g/L (2010). When ready for use, these products contain 500 g/L VOC.

APPLICATION

SUBSTRATE PREPARATION:
Concrete substrates must be prepared by, e.g. shot-blasting, milling etc., to make sure that they are ready for the coating, slightly roughened, free from dirt and any other objects that might prevent adhesion. The aggregate particles must be exposed. The dew point temperature has to be observed. The substrate must have an average tear strength ≥ 1.5 N/mm^2.
The substrate has to be protected against rising damp before priming.

MIXING:
The products are supplied in a matched mixing ratio. Component B (hardener) is added to component A (resin). It is important to make sure that all of the hardener component is added to the resin. Mix intensively with a slowly running agitator (400 rpm at the maximum), however, at least for 5 minutes. Subsequently transfer into a clean container and carefully mix again until the mixture has a streak-free, uniform colour. The temperature of the two components should be at least + 8 °C.

APPLICATION:
Distribute evenly on the prepared substrate using a rubber applicator and carefully brush in to ensure proper wetting and roll over it again using a roller.
If required, cover the fresh primer with dry quartz sand (0.1-0.4 mm) straight after application (requires approx. 1.0 kg/m^2).
Remove all loose quartz sand before continuing work (e.g. by suction cleaning).
After 12-24 hours, the spreaded product can be coated with any **EH** epoxy resin coating system.

If the surface is very uneven, 35-45 % fire-dried quartz sand (0.1-0.4 mm) can be added to the products. Apply using a scraper.

EH115 can also be applied onto moist concrete surfaces, e.g. after having prepared the substrate using high-pressure water jet. However, the concrete surface must not be covered with a reflective, uniform film of water.

CURING:
The curing behaviour of reactive plastic material is affected in particular by the ambient and substrate temperature. Low temperatures slow the chemical reactions and thus prolong the time required for application, until the surface is ready for the second coat, until being able to walk on, and the total curing time; as well as increasing the amount of material required due to the higher viscosity. High temperatures accelerate the chemical reactions, thus correspondingly accelerating the above processes.
In order for the reactive plastic material to fully cure, the mean temperature of the substrate must always be higher than the minimum temperature.

When used outdoors, it must be ensured that the material is protected from moisture for a sufficient period of time after application, since premature exposure to moisture can cause the surface to turn white and/or sticky, which can significantly impact on the adhesion of the next coating and might mean that the layer might have to be removed again using e.g. sandblasting. The existing material underneath this layer will cure without any problems.

CLEANING:
Carefully clean all tools with **EH** THINNER immediately after use and when not using them for longer periods of time.

PHYSIOLOGICAL BEHAVIOUR/SAFETY MEASURES, LABELLING AND DISPOSAL:
The products are physiologically harmless after curing. Please refer to the EC Safety Data Sheet for more information on safety measures, product labelling and disposal.
The VBG 23 accident prevention regulations on the application of coatings, and data sheet M017 (Solvents) of the trade association of the chemical industry must be observed. Always wear protective goggles and nitrile-impregnated cotton gloves during application.

PAGEL Spezial-Beton GmbH & Co. KG
Wolfsbankring 9 Tel. +49 201 68504 0
45355 Essen · Germany Fax +49 201 68504 31
www.pagel.com · info@pagel.com