

PAGEL®-EPOXY RESIN COATING

PROPERTIES

- **2-component, epoxy-resin based, reactive polymer**
- resistant to long term exposure to high temperatures and changes in temperatures of up to +50 °C
- **solvent-free, pigmented**
- **perfect Shore-hardness**, ensuring excellent surface hardness
- **highly impermeable** to chlorides
- **excellent flow properties**
- weatherproof, abrasion-proof, seals
- **hydrophilic**
- transparent (**EH136**)
- pigmented (**EH120, EH130**)
- the binding agent might cause colours to slightly change following prolonged UV exposure

FIELDS OF APPLICATION

- **coating** for use on cementitious surfaces such as concrete or cement screeds, suitable for both indoor and outdoor use
- **primers: with EH1, EH114, EH115**
- for coating floors
- for use as a top coat
- **concrete seal EH136**

EH120

EH130

EH136

COATING

EH120

- epoxy-resin based
- **smooth flowing**, high covering power
- **pigmented**
- **fillerized**

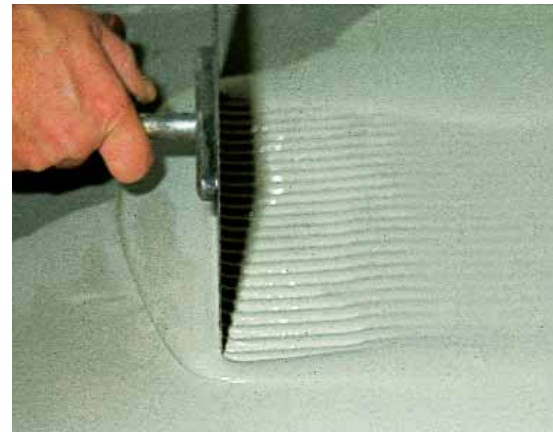
EH130

- **top sealer** for resin coated and gritted floors
- **top coat** for concrete and screed surfaces
- **pigmented**
- **non-fillerized**

CONCRETE SEAL

EH136

- epoxy-resin based
- **smooth flowing**, high covering power
- **pigmented**
- **fillerized**



CE	
PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 08 520201 EN 13813:2002 Resin screed/Resin coating for indoor application EN 13813: SR-B1,5-AR1-IR4	
Reaction to fire	E _n
Release of corrosive substances	SR
Wear resistance	≤ AR1
Tensile adhesion strength	≥ B1,5
Impact strength	≥ IR4

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Release of corrosive substances	SR
Wear resistance	≤ AR1
Tensile adhesion strength	≥ B1,5
Impact strength	≥ IR4

NPD: „No Performance Determined“

EH1 20

EH1 30

EH1 36

TECHNICAL DATA

TYPE		EH1 20	EH1 30	EH1 36
colour	RAL*	7032	7023, 7032	transparent
mixing ratio	ratio by weight volume	5:1 pigmented -	5:1 pigmented 3.1:1	1:2 -
density (23 °C/50% rel. humidity)	kg/dm ³	1.4	1.5	1.05
viscosity	at 10 °C	mpas. 4500-5500	2500-3000	800
	at 20 °C	mpas. 2000-2500	1800	1500
preparation time	at 10 °C	min. app. 45-50	app. 60	app. 90
	at 20 °C	min. app. 35-40	app. 45	app. 60
	at 30 °C	min. app. 20-25	app. 30	app. 45
can be recoated	at 10 °C	after h 15-30	15-30	20-30
	at 20 °C	after h 10-20	10-20	12-16
fully cured (100%)	at 20 °C	after d 7	7	7
minimum subsurface temperature on the subsurface	°C	+10	+10	+10
material consumption	primer**	g/m ²	-	app. 200-250
	sealing coats (2x)	g/m ²	-	app. 250-500
	top coa	g/m ²	-	app. 350-800***
	coating	kg/m ²	app. 1.40	-
	pouring mortar	kg/m ²	app. 1.65	-
solid state	%	100	100	62
coating thickness	mm	1-5	-	-
adhesive tensile strength	N/mm ²	concrete failure	concrete failure	concrete failure
packaging	kg-container	12	12	10

All test data are guide values, proofed in our German manufacturing plants, - values from other manufacturing plants may vary.

* Other RAL colours are available on request ** Other primers available on request *** depending on subsurface properties

storage: 12 months. Cool, dry, free from frost. Unopened in its original packaging.

hazard class: no dangerous substance follow safety data sheet

EH1 20, EH1 30: 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.

EH1 36: The EU VOC content threshold value for this product (Cat. II A/j) when ready for use is: 140 g/l (2007) / 140 g/l (2010). When ready for use, this product contains <140 g/l VOC.

PROCESSING

SUBSURFACE PREPARATION: Concrete surfaces must be prepared by, e.g. grit 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 concrete aggregate must be exposed. Please take note of the dew-point temperature. The subsurface must have a pull-off strength of around 1.5 N/mm². The subsurface must be protected against rising damp before priming.

MIXING THE PRIMER (EH1, EH1 14, EH1 15): Die The resin (A) and hardener (B) are supplied ready for mixing (with the exception of resin and hardener supplied in barrels). Empty all of the hardener into the resin. Thoroughly mix the two components with a mechanical agitator with a speed of no more than 300 rpm until the mixture has been homogeneously blended (approx. 5 minutes). Transfer the mixture into a clean container and carefully mix again. The temperature of both of these components must be above +8 °C.

APPLYING THE PRIMER (EH1, EH1 14, EH1 15): The primer should be applied using, e.g. a rubber scraper, and evenly distributed on the concrete subsurface. If necessary, the primer can be covered with tempered sand (particle size: 0.1-0.3 mm) straight after application (requires approx. 1.0 kg/m² sand). If the surface is very uneven, the primer can be mixed with 35-45 % quartz sand (0.1-0.4 mm). This mixture is then applied using a scraper. Remove all loose sand before applying the coating.

MIXING THE EPOXY RESIN COATING (EH1 20, EH1 30, EH1 36): The resin (A) and hardener (B) are supplied ready for mixing (with the exception of resin and hardener supplied in barrels). Empty all of the hardener into the resin. Thoroughly mix the two components with a mechanical agitator with a speed of no more than 300 rpm until the mixture has been homogeneously blended (approx. 5 minutes). Transfer the mixture into a clean container and carefully mix again. The temperature of the two components should be above 15 °C when mixing.

APPLYING THE EPOXY RESIN COATING (EH1 20, EH1 30): EH1 20: (d = 1-2 mm): Apply evenly using a hard rubber or toothed spreading knife, or trowel and, after approx. 10 minutes, use a spiked roller to remove bubbles. Pouring mortar (d = 3-5 mm): Mix EH1 20 and 0.5-1.0 GT fire-cured sand (0.1-0.4mm) and apply at a thickness of at least 3 mm (when M 1:1) using a trowel or spreading knife.

With slipping hazard class of 11-13 must be adequately covered with fire-cured quartz sand.

EH1 30: Apply evenly with a medium-web roller.

TOP COAT (EH1 36): Apply the second coat immediately once EH1 36 has dried and no later than after 24 hours, using a roller and by crisscrossing over the first coat. Material consumption: approx. 150-185 g/m². EH1 36 can also be diluted with approx. 10-20 % water for the top coat. Material consumption: 150-200 g/m².

CURING: The curing of reactive polymers is affected in particular by the ambient and subsurface's temperature. Low temperatures slow the polymer's 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 floor's 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 diminishing the above times. In order for the reactive polymer to fully cure, the mean temperature of the subsurface must always be higher than the minimum temperature.

When used outdoors, it must be ensured that the coating is protected from damp for a sufficient period of time after application, since premature exposure to damp 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 polymer 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-PAGEL-VERDÜNNUNG (THINNER) immediately after use and when not using them for longer periods of time.

PHYSIOLOGICAL BEHAVIOUR, SAFETY MEASURES, LABELLING AND DISPOSAL: The above 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 "Verarbeiten von Beschichtungstoffen", and data sheet M017 "Lösungsmittel" (Solvents) of the German Berufsgenossenschaft der Chemischen Industrie (Government Safety Organisation of the Chemical Industry) must be observed. Always wear protective goggles and nitrile gloves during application.

The information provided in this leaflet, is supplied by our consulting service and is the end result of exhaustive research work and extensive experience. They are, however, without liability on our part, in particular with regard to third parties proprietary rights, and do not relieve the user of the responsibility for verifying that the products and processes are suitable for the intended application. The data presented was derived from tests under normal climate conditions according to DIN 50014 and mean average values and analysis. Deviations are possible when delivery takes place. Given that recommendations may differ from those shown in this leaflet written confirmation should be sought. It is the responsibility of the purchaser to ensure they have the latest leaflet issue and that its contents are current. Our customer service staff will be glad to provide assistance at any time. We appreciate the interest you have shown in our products. This technical data sheet supercedes previously issued information. Please find the latest leaflet issues at www.pagel.com.



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