

## PAGEL®-EPOXY RESIN PRIMERS/ BONDING AGENTS

### PROPERTIES

- **2-component**, epoxy-resin based, reactive polymer
- **solvent-free**, non-fillerized and non-pigmented
- **low viscosity** and high capillary action
- penetrates even the smallest of pores and capillaries and develops a high level of **adhesive strength** on concrete bases
- when cured, **fully resistant against** water, sea water, waste water and a range of solutions, diluted acids, salt solutions, mineral oils, lubricants and fuels, as well as a range of solvents
- the bonding agent might cause colours to slightly change over time as a result of UV exposure

### FIELDS OF APPLICATION

- suitable for use as a **primer** for solvent-free EP coating systems for use on concrete, mortar, cement screeds and steel
- suitable for use as a **sealant** for cement-bonded surfaces, e.g. in workshops, industrial facilities, car parking facilities etc.
- suitable for **increasing the strength** of concrete and mortar surfaces
- suitable for use as a **bonding layer** for coatings, in particular for highly absorbent subsurfaces
- suitable for use as a **top coating** for creating surfaces that are easy to clean

EH1

EH114

EH115

### EH1

- **bonding agent** for EP mortar and EP coatings with corresponding aggregates
- **suitable for use** on all **dry** concrete, mortar and steel surfaces
- **bonding layer** for EP systems and cement mortar

### EH114

- **primer for use in lower temperatures**, starts reacting from +5 °C
- **sealant** for cement-bonded surfaces that need to be **readied quickly for other work**

### EH115

- **high adhesive strength** including when applied onto wet and damp surfaces (residual moisture <8 %)



CE	CE	CE	CE
PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 08 460100 EN 13813:2002 Resin screed/Resin coating for indoor application EN 13813: SR-B1,5-AR1-IR4	PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 08 460100 EN 13813:2002 Resin primer for indoor application EN 13813: SR-B1,5	PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 08 510109 EN 13813:2002 Resin primer for indoor application EN 13813: SR-B1,5	PAGEL SPEZIAL-BETON GMBH & CO.KG Wolfsbankring 9 45355 Essen, Germany 08 510300 EN 13813:2002 Resin primer for indoor application EN 13813: SR-B1,5
Reaction to fire E <sub>n</sub> Release of corrosive substances SR Wear resistance NPD Tensile adhesion strength ≥ B1,5 Impact strength NPD	Reaction to fire E <sub>n</sub> Release of corrosive substances SR Wear resistance NPD Tensile adhesion strength ≥ B1,5 Impact strength NPD	Reaction to fire E <sub>n</sub> Release of corrosive substances SR Wear resistance NPD Tensile adhesion strength ≥ B1,5 Impact strength NPD	Reaction to fire E <sub>n</sub> Release of corrosive substances SR Wear resistance NPD Tensile adhesion strength ≥ B1,5 Impact strength NPD

NPD: „No Performance Determined“

EH1

EH114

EH115

## TECHNICAL DATA

TYPE			EH1	EH114	EH115
<b>colour</b>			transparent, light yellow	transparent, light yellow	transparent, light yellow
<b>mixing ratio</b>	ratio by weight		2:1	2:1	3:1
<b>density (23°C/50% rel. humidity)</b>	kg/dm <sup>3</sup>		1.10	1.10	1.10
<b>viscosity</b>	at 10 °C	mpas.	app. 1000–1500	app. 1200–1500	app. 1000–1200
	at 20 °C	mpas.	app. 500–700	app. 800–1000	app. 600–700
<b>preparation time</b>	at 10 °C	min.	app. 60–75	app. 35–45	app. 60–75
	at 20 °C	min.	app. 45	app. 20	app. 45
	at 30 °C	min.	app. 20–30	app. 10–12	app. 30–35
<b>can be recoated</b>	at 10 °C	after h	24–36	6–10	15–30
	at 20 °C	after h	10–20	4–6	10–20
<b>fully cured (100%)</b>	at 20 °C	after d	7	7	7
<b>minimum surface temperature at the subsurface</b>	°C		+10	+5	+10
<b>material consumption</b>	primer*	g/m <sup>2</sup>	300–500	500–800	300–500
	sealing coats (2x)	g/m <sup>2</sup>	600–800	600–800	600–800
	top coat	kg/m <sup>2</sup>	250–400	250–400	250–400
<b>solid state</b>			100	100	10
<b>adhesive tensile strength</b>	N/mm <sup>2</sup>		concrete failure	concrete failure	concrete failure
<b>packaging</b>	kg-container		1, 12, 30	1	12

\*depending on surface properties

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

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

EH1, EH114, EH115: The EU threshold value for the VOC content of these products (Cat. II A/j) when ready for use is: 550 g/l (2007) / 500 g/l (2010). When ready for use, these products contain < 500 g/l VOC.

## PROCESSING

### SUBSURFACE PREPARATION (EH1, EH114, EH115):

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/mm<sup>2</sup>. The subsurface must be protected against rising damp before priming.

**MIXING:** The products are supplied ready for mixing (with the exception of products supplied in barrels). Add component B (hardener) to component A (resin). It is important to make sure that all of the hardener is added to the resin.

Mix slowly and thoroughly for at least 5 minutes using a mechanical agitator (max. 400 rpm). Transfer into a clean container and carefully mix again to remove all colour streaks and until the mixture has a uniform colour. The temperature of both of these components should be between at least 15–20 °C during mixing.

**APPLICATION:** (EH1, EH114, EH115) apply evenly onto the ready-prepared surface using a rubber spreader and carefully brush in to ensure proper application. Finish by going over it again using a roller.

If necessary, the primer can also be covered with dry quartz sand (0.1–0.4 mm) straight after application (requires approx. 1.0 kg/m<sup>2</sup> sand). Remove all loose quartz sand before continuing work on the surface (e.g. by suction cleaning).

The sand covered surface can be coated using any of PAGEL's EH-PAGEL epoxy resin coating systems after 12–24 hours.

If the surface is very uneven, the primer can be mixed with 35–45 % tempered quartz sand (0.1–0.4 mm). This mixture is applied using a scraper.

EH115 can also be applied onto damp concrete surfaces, e.g. after having prepared the surface using high-pressure

water blasting. However, the concrete surface must not be covered with a reflective, uniform film of water.

**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 surface 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 Beschichtungsstoffen", 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](http://www.pagel.com).



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