

# PAGEL®-EPOXY MORTAR

## PROPERTIES

- EH 2 is fast curing, pigmented and solvent-free. The grain size distribution ranges from 0-1 mm. EH 2 is used in layer thicknesses between 2 and 40 mm and is universally usable on concrete floors and cement screeds.
- In its cured state, EH 2 is resistant to water, seawater and sewage water. It is also resistant to many lye solutions, diluted acids, salt solutions, mineral oils, lubricants, fuels and many solvents.
- EH 2 is impermeable to water and resistant against frost and dew-salt.
- A certain amount of colour change and chalking must be expected under the influence of UV light because of the binding material that has been used.

## PRODUCT DESCRIPTION

- EH 2 is a solvent-free, filled and pigmented epoxy resin-based three component reaction plastic.

## APPLICATION

- EH 2 is generally used as a fast curing reaction resin mortar primer for the re-profiling of industry floors (concrete or cement screeds), for packing up post and railing feet, removal of step traps, coating of motor trucks, coating of ramps, repair of rolling gate – floor bars and embedding of joint – transition profiles.

EH2

<div>CE</div> <div>PAGEL® Spezial-Beton GmbH &amp; Co. KG</div> <div>D-45355 Essen</div>		
	find the printed batch number	
	EN 13813 SR-AR1-B1,5-IR4	EN 13813 SR-B1,5
	Epoxy resin grout/coating for indoor use (superstructures according to tech. info):	Priming
Product fire behaviour:	Es	Es
Release of corrosive substances (Synthetic Resin Sreced)	SR	SR
Water permeability:	NPD <sup>1)</sup>	NPD
Abrasion resistance:	AR1 <sup>2)</sup>	NPD
Tensile bond strength:	B 1.5	B 1.5
Impact resistance:	IR 4	NPD
Sound insulation:	NPD	NPD
Sound absorption:	NPD	NPD
Thermal insulation:	NPD	NPD
Resistance to chemicals:	NPD	NPD

1) NPD = No Performance Determined  
2) Refers to coating when smooth and not yet coated with sand



CE	CE
PAGEL Spezial-Beton Werksteingießerei 9 45355 Essen find the printed batch number	PAGEL Spezial-Beton Werksteingießerei 9 45355 Essen find the printed batch number
SR-AR1-B1,5-IR4 coarse based screeds and EP-coatings	SR-B1,5 coarse based screeds and EP-coatings
EN 13813	EN 13813

TECHNICAL DATA			
TYPE			E H 2
Colour shade		approx. Ral 7032	
Mixing ratio (weight)		3 : 1 : 29	
Resin		hardener + sand	
Density at 32°C/50% r.h. of air		g/cm <sup>3</sup>	2,0
Processing time at 20°C		min	approx. 30
100% through-hardened		after 7 days (at 20°C)	
Minimum processing temperature		10°C substrate temperature	
Material consumption		kg/m <sup>2</sup>	2
		and mm layer thickness	
		(maximum layer thickness = 40 mm)	
Solids		%	100
Compressive strength		7 d N/mm <sup>2</sup>	approx. 70
Flexural strength		7 d N/mm <sup>2</sup>	approx. 20
Adhesive tensile strength		biggest concrete fracture	
All test data are guide values, proofed in our German manufacturing plants, - values from other manufacturing plants may vary.			

**Shelf-life:** min. 6 months in cool and dry conditions

**Higher temperatures reduce pot time and viscosity.**  
**Lower temperatures increase pot time and viscosity.**

### PROCESSING

**SUBSTRATE QUALITY:** Cement-bound substrates must be firm, dry, have to have grip and load-bearing strength. The substrate must also be free of layers of cement paste, loose and friable elements and substances with separating action such as oil, grease, rubbed off rubber, paint residues and suchlike. Preparation of the substrate by sand- or shot-blasting, high-pressure water-jetting, milling or grinding is necessary and may be dispensed with in exceptional cases only.

After the substrate has been prepared its adhesion strength must be at least 1.5 N/mm². The surface moisture of the concrete must not exceed 4%. The temperature of the substrate must be at least 3°C above the prevailing dew point and must be protected against rising damp.

The DBV<sup>1</sup> instruction leaflet on "Application of Reactive Resins in Concrete Construction, Part 2: Substrate" also applies.

**MIXING:** Except for bulk packs, IBC containers and drums the components resin (A) and hardener (B) are supplied in the correct mixing ratio. For mixing purposes the hardener component (B) is poured into the resin component (A). Care must be taken to ensure that no hardener is left behind. The mixture is then very thoroughly mixed with a mechanical mixer at a speed of not more than 300 rpm. For this purpose a slowly running drill machine fitted with a paddle can be used for example.

It is important that the mixture is thoroughly stirred up from the base and sides too, so that the hardener is also distributed vertically.

Mixing must continue until the complete mixture is homogeneous (free of streaks). Stirring should continue for a period of not less than about 5 minutes.

Since base and side areas cannot be optimally mixed, the product must not be used straight from the container in which it is supplied, but must be transferred into a clean vessel and thoroughly stirred again.

This procedure is a mandatory requirement since only homogeneously mixed components do cure completely and produce the desired appearance.

The temperature of both components should be at least 15°C when they are mixed.

The material can then be applied to the prepared substrate.

**HANDLING GUIDELINE:** In the handling of reactive resins the temperature of the substrate is of critical importance as well as the ambient temperature. At low temperatures all the chemical reactions are retarded; this extends the times for processing, follow-up working, accessibility and achieving complete curing. At the same time consumption is increased by the higher viscosity. At high temperatures the chemical reactions are accelerated, so that the above times are correspondingly shortened. For the reactive resin to cure completely the average temperature of the substrate must be above the minimum temperature.

In outdoor use care must be taken to ensure that the material is protected against moisture for a sufficient period after its application. If the surface is exposed to moisture too soon, whitening and/or tackiness may develop which can seriously impair adhesion to the subsequent coating and must therefore be removed if necessary (e. g. by sandblasting). The material present underneath this layer cures properly.

### Physiological effects and protective measures

The plastic is harmless in its fully cured state. Before the material is used the warning notes on the container should be read and followed. Any contaminant material on the skin must be washed off immediately with copious soap and water. We recommend that staff using the material comply with the German BG<sup>2</sup> instruction leaflet M 023 "Polyester- und Epoxid-Harze" or similar instructions of the relevant regional institutions. In its non-cured state the components must not be allowed to enter the drainage system, water bodies or soil. Spilled material should be taken up immediately, e.g. with sawdust.

The containers must be treated in accordance with the current waste and waste-disposal laws.

**CLEANING:** After each operation tools and machines must be carefully cleaned. For this we recommend the use of our cleaning agents GI 805 (for epoxy resins) or GI 806 (for polyurethane resins).

**The epoxy mortar fulfils its properties if there is a uniform gloss appearance when curing is complete, i.e. extremely matt areas must be re-primed.**

**Re-priming is likewise necessary if sanding has been performed and areas are apparent after brushing off where disproportionately little sand grain is retained (bald-spotting).**

<sup>1</sup> German Concrete and Structural Engineering Federation (Tr.).

<sup>2</sup> German professional association "BG Chemie"

<sup>3</sup> Lit. "no" (Tr.).

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