

Technical Data Sheet  
Article No. 0905

# Epoxy BH 100

(Viscacid Epoxy Construction Resin New)  
Transparent epoxy resin for universal use

## Range of use

Epoxy BH 100 is an unpigmented epoxy resin binder that is used for impregnating, priming, bonding layers, levelling layers and for the production of compression resistant mortars and self-flowing floor coatings as well as blinded finish floor coverings.

### Examples of applications:

- Consumer markets
- Workshops
- Fabrication facilities
- Stairs with heavy pedestrian traffic
- Assembly halls
- Shipyard halls
- Warehouses for heavy goods
- Hangars for heavy vehicles such as lorries and airplanes

## Property profile

Epoxy BH 100 is a transparent, 2-component, liquid epoxy resin on a bisphenol A/F base:

- Low viscosity
- Good penetration capacity
- Plasticizer-free
- Nonylphenol and alkyl phenol-free
- Can be subjected to heavy mechanical loads
- Can be subjected to chemical loads

## Characteristic data of the product

	Comp. A	Comp. B	Mixture
Density (25 °C):	1.07 g/cm <sup>3</sup>	0.97 g/cm <sup>3</sup>	1.08 g/cm <sup>3</sup>
Viscosity (25 °C):	900 mPa·s	50 mPa·s	450 mPa·s
	1 : 10 mortar*		
Compressive strength:	67 N/mm <sup>2</sup>		
Flexural tensile strength:	23 N/mm <sup>2</sup>		

\* Epoxy resin mortar with standard sand

## Substrates

The substrate must be load-bearing, stable, sound and free of loose material, dust, oils, grease, rubber marks and other substances that could interfere with adhesion. The tensile strength of the surface of the substrate must be 1.5 N/mm<sup>2</sup> on average and compressive strength at least 25 N/mm<sup>2</sup>.

Substrates must have reached their compensation moisture balance and be protected from the effect of moisture from behind, also during utilisation.

- Concrete max. 4 % by mass
- Cement screed max. 4 % by mass
- Anhydrite screed max. 0.3 % by mass

- Magnesite screed 2-4 % by mass

In the case of anhydrite and magnesite screed, it is extremely important that moisture cannot penetrate from construction elements or the ground.

## Preparation of the substrate

Prepare the substrate by suitable means, e.g. steel ball jetting or with a diamond grinder, so that it meets the specified requirements.

Broken out or missing areas should be filled flush with the surface using the Remmers PCC System or with Remmers EP mortars.

### Preparation of the epoxy binder

Add the entire quantity of the hardener (component B) to the resin compound (component A). Mix with a slow speed, electric mixer (approx. 300-400 rpm), then pour into a separate container and mix again thoroughly.

For filled systems, the corresponding quantity of filler is added to the epoxy resin mixture while stirring slowly, mixing thoroughly.

Directly after preparation, the mixture is poured onto the prepared surface and distributed by suitable means.

### Mixing ratio

71 : 29 parts by weight

### Pot-life

Approx. 25 minutes at 20 °C and 60 % relative humidity. Higher temperatures reduce, lower temperatures increase pot-life.

### Note on working

Wear suitable protective clothing/equipment when working (see also Personal protective equipment).

### Application method

Depending on application, apply with a rubber wiper, notched rubber blade, toothed trowel, epoxy roller or smoothing trowel.

### Waiting time

Waiting time between working operations at 20 °C should be at least 12 hours and max. 2 days. If waiting time is longer than 48 hours, the surface of the last working operation must be broadcast with fire-dried quartz sand. The times given are reduced at higher temperatures and increased at lower temperatures.

### Working temperature

Ambient temperature as well as the temperature of the material and substrate must be at least 8 °C, max. 30 °C. Relative humidity should not exceed 80 %. The

temperature of the substrate must be at least 3 °C above the dew point temperature.

### Drying time

At 20 °C and 60 % relative humidity: Foot traffic after 1 day, mechanical loads after 3 days, full loading capacity after 7 days. At lower temperatures correspondingly longer.

During the curing process (approx. 24 hours at 20 °C), protect the material from moisture; otherwise the surface may be disturbed or problems with adhesion may arise.

### Examples of applications

#### Impregnation/strengthening:

The resin mixture is thinned with up to 20 % by mass Remmers V101 Thinner and applied to the surface by suitable means such as a rubber wiper to saturation and then worked into the substrate with an epoxy roller. Application rate, depending on substrate and application, approx. 0.30-0.50 kg/m<sup>2</sup> epoxy resin.

#### Priming

The resin mixture is generously applied to the surface and distributed by suitable means, e.g. a rubber wiper, so that the pores on the surface of the substrate are completely closed. Then work over with an epoxy roller. Application rate approx. 0.30-0.50 kg/m<sup>2</sup>, depending on the substrate.

#### Levelling layer /scratch coat:

Apply the material which has been filled 1 : 1 parts by weight to the primed surface and distribute with a suitable trowel. If necessary, work over afterward with a spiked roller. Application rate per mm thick layer: approx. 0.85 kg/m<sup>2</sup> epoxy resin and 0.85 kg/m<sup>2</sup> Remmers Selectmix 05.

#### Self-flowing covering/layer for a blinded finish:

Apply the material which has been filled 1 : 1.5 parts by weight to the primed surface and distribute with a toothed trowel or notched rubber

wiper and work over with a spiked roller.

Application rate per mm thick layer: approx. 1.0 kg/m<sup>2</sup> epoxy resin and 1.5 kg/m<sup>2</sup> Remmers Selectmix SLB.

#### Liquid tight epoxy screed:

Distribute and smooth the material which has been filled 1 : 1.5 parts by weight with a smoothing trowel. Application rate per mm thick layer: approx. 0.4 kg/m<sup>2</sup> epoxy resin and 2.0 kg/m<sup>2</sup> Remmers Selectmix 25.

#### Open-pored epoxy screed:

Distribute and smooth the material which has been filled 1 : 10 parts by weight with a smoothing trowel. Application rate per mm thick layer: Approx. 0.2 kg/m<sup>2</sup> epoxy resin and 2.0 kg/m<sup>2</sup> Remmers Selectmix 25.

### Tools, cleaning

Smoothing trowel, toothed trowel, rubber wiper, epoxy roller, spiked roller, mixing equipment, positive mixer if required. Further information is found in our tool programme brochure.

Clean tools and any splashed material immediately while fresh with V 101 Thinner.

### Personal protective equipment

Suitable nitrile rubber gloves, protective goggles, splash protection. Further information is found in our tool programme brochure.

### Notes

All of the values and application rates given above were determined under laboratory conditions (20 °C). When worked at the building site, there may be slight deviations in these values.

Abrasive mechanical loads cause wear marks. Not suitable for vehicles with metal or polyamide tyres!

Impregnated surfaces may have a spotty appearance due to differing absorption capacity of mineral substrates.

When exposed to UV light and weather, epoxy resins are generally not colour stable.

Further notes on working, system construction and maintenance of the products listed are found in the latest Technical Data Sheets and Remmers System Recommendations.

**Information in an emergency:**

Mon.-Thurs. from 7:30 a.m. to 4:00 p.m.; Fri. from 7:30 a.m. to 2:00 p.m.

Product Safety Department:

Tel.: +49 (0)5432/83-138

After office hours:

Tel.: +49 (0)5961/919547

Mobile: +49 (0)171/6428297

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**Packaging, application rate, shelf-life**

**Packaging:**

1 kg, 2.5 kg, 10 kg and 25 kg tin cans

**Application rate:**

Depending on application between 0.2 and 0.85 kg/m<sup>2</sup>

**Shelf-life:**

At least 12 months in unopened and unmixed, original containers stored cool but frost-free.

**Safety, ecology, disposal**

Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet and the brochure "Epoxy Resins in the Building Industry and the Environment" published by Deutsche Bauchemie e.V. (2<sup>nd</sup> edition, 2009).

**GISCODE: RE 01**


**Chem VOC Paint V (2004/42/EC)**

Group (LB): j

Stage 2 (2010): max. 500 g/l

Stage 1 (2007): max. 550 g/l

This product contains < 500 g/l

	
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<b>07</b>	
<b>EN 13813 SR-B1,5-AR1-IR4</b>	
<b>Epoxy BH 100</b>	
Synthetic resin screed for use in buildings (Systems according to the Technical Data Sheets)	
Behaviour under fire	B <sub>fl</sub> <sup>3)</sup>
Release of corrosive substances	SR
Water permeability	NPD <sup>2)</sup>
Wear resistance	≤ AR 1 <sup>1)</sup>
Adhesive pull strength	≥ B 1.5
Impact resistance	≥ IR 4
Step sound insulation	NPD
Sound insulation	NPD
Thermal insulation	NPD
Resistance to chemicals	NPD

- 1) Determined according to the BCA method on smooth coverings  
 2) NPD: Characteristic value not determined  
 3) In Germany, DIN 4102 is still valid, fire class B1 is fulfilled and is comparable with DIN EN 13501-1 Class B<sub>fl</sub>



The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet. Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid. With the publication of this Technical Information Sheet all previous editions are no longer valid.

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