

Technical Data Sheet  
Art. No. 1160

# Epoxy ST 100

Transparent priming and mortar resin  
Primer in the Remmers OS 8 System



Mixing ratio  
2 components



Working temperature



Mixing time



Brush, roller,  
flow coating;  
work standing



Pot-life



Store frost-free



Shelf-life

## Range of use

Epoxy ST 100 is an unpigmented epoxy resin binder that is used as an impregnation agent, primer, bonding layer, levelling layer and for the production of compression resistant mortars, flow covers and as a blinding layer for blinded covers.

## Application examples:

- Consumer markets
- Workshops
- Stairs with heavy traffic
- Production halls
- Assembly areas
- Ship yards
- Warehouses for heavy goods

## Property profile

Transparent, 2-component, liquid epoxy resin on a bisphenol A base.

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

1160 Epoxy ST 100\_11.16

## Produktkenndaten

	Comp. A	Comp. B	Mixture
<b>Density (25 °C):</b>	1.07 g/cm <sup>3</sup>	0.97 g/cm <sup>3</sup>	1.08 g/cm <sup>3</sup>
<b>Viscosity (25 °C):</b>	900 mPas	50 mPas	750 mPas
	1:10 mortar*		
<b>Compressive strength:</b>	42 N/mm <sup>2</sup>		
<b>Flexural tensile strength:</b>	11 N/mm <sup>2</sup>		

\* Epoxy resin mortar with standard sand

## Substrate

The substrate must be load-bearing, form-stable, sound, free of loose constituents, dust, oil, grease, rubber marks and other substances with a separating effect. 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>.

The substrate must have achieved its moisture balance and be protected from the effects 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 screeds it is essential that the penetration of moisture from building elements or the ground is not possible.

## Substrate preparation

Prepare the substrate by suitable means, e.g. steel ball jetting or diamond grinding so that it meets the specified requirements. Fill broken out or missing areas in the substrate with the Remmers PCC System or Remmers EP Mortars flush with the surface.

## Production of the mixture

### Tin container:

Add the entire quantity of the hardener (comp. B) to the basic component (comp. A). Mix thoroughly with a slow speed electric mixer (max. 300 - 400 rpm). The fill the mixture into a separate container and mix again thoroughly. In the case of filled systems, the corresponding quantity of filler is added to the epoxy resin mixture while mixing slowly. Mix thoroughly.

### Multi-chamber bag:

Open the outer packaging at the notch and take out the transparent, multi-chamber bag. Remove the divider clip on the 2-component bag. Then mix the two components together in the bag thoroughly by kneading the bag (approx. 60 sec.)

Then pour the thoroughly mixed material over the prepared surface and distribute with a suitable tool.

## Mixing ratio

75 : 25 parts by weight

## Pot-life

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

## Notes on working

When working, wear suitable protective equipment (see also Personal protective equipment).

See the OS 8 instructions for laying when using in an OS 8 system.

### Application method

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

### Waiting time

Waiting times between working operations should be at least 12 hours and max. 2 days at 20 °C. If waiting times are longer than 48 hours, the surface of the previous working operation must be broadcast with fire-dried quartz sand.

The times given are decreased at higher temperatures and increased at lower temperatures.

### Working temperature

The temperature of the surrounding air, the material and the 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, mechanically loadable after 3 days, full loading capacity after 7 days. Correspondingly longer at lower temperatures.

During the curing process (approx. 24 hours at 20 °C), protect the applied material from moisture; otherwise disturbances on the surface or a reduction of adhesion may occur.

## Application examples

### Impregnation/strengthening:

The mixed resin is diluted with up to 20% by mass Remmers V 101 Thinner and applied to the surface until saturation, using a suitable tool, e.g. rubber blade, and then worked into the substrate with an epoxy roller.

The application rate depends on the substrate and application and is approx. 0.30 - 0.50 kg/m<sup>2</sup> epoxy resin.

See the OS 8 instructions for laying when using in an OS 8 system.

### Priming:

The mixed resin is generously applied to the surface. Distribute with a suitable tool, e.g. rubber blade so that pores in the substrate are completely filled. Then work into the substrate with an epoxy roller.

The application rate depends on the substrate and application and is approx. 0.30 - 0.50 kg/m<sup>2</sup>

### Levelling layer/scratch coat:

Distribute the material which has been filled up to 1:1 parts by

weight onto the primed surface with a suitable trowel. If necessary, work over 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.

### Flow cover/blinded layer:

Pour the material which has been filled up to 1:1.5 parts by weight onto the primed surface and distribute with a toothed trowel or toothed rubber blade. then work over with a spiked roller. Application rate for a 1.5 mm thick layer: approx. 1.00 kg/m<sup>2</sup> Epoxy Resin and 1.50 kg/m<sup>2</sup> Remmers Selectmix SBL.

### Liquid tight epoxy screed:

Distribute the material which has been filled up to 1:5 parts by weight with a smoothing trowel and smooth.

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 the material which has been filled up to 1:10 parts by weight with a smoothing trowel and then smooth.

Application rate per mm layer thickness: 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 blade, epoxy roller, spiked roller, mixing equipment, positive mixer if needed. Further information on tools is found in our Tool Programme.

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

Take suitable protective measures when cleaning (see Personal protective equipment).

## Personal protective equipment

Suitable nitrile rubber gloves, protective glasses and splash guards. Further information on protective equipment is found in our tool programme.

## Notes

All of the values given were measured under laboratory conditions (20°C) and with standard colours. When worked at the building site, there may be slight deviations from these values.

Abrasive mechanical loads cause wear marks on the surface of the coating.

Use only materials with the same batch number when working on adjacent surfaces; otherwise there may be slight differences in the colour, gloss and texture.

Because of the varying absorption capacity of cementitious substrates, impregnated surfaces look spotty.

Epoxy resins are not colourfast in general when exposed to UV-light and weather.

Primers should always be applied so that they fill pores! In this case it may be necessary to apply a second coat of primer or increase the application rate.

Further notes on working, construction of the system and maintenance of the listed products are found in the latest Technical Data Sheets as well as in Remmers recommendations for placing floor covers.

## Packaging, application rate, shelf-life

### Packaging:

Multi-chamber bag: 1 kg, 2.5 kg,  
Tin container: 10 kg and 25 kg  
Drums upon request

### 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 Construction Industry and the Environment" issued by Deutsche Bauchemie e.V. (2<sup>nd</sup> edition, as per 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

### Emergency Information:

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:

Giftinformationszentrum-Nord  
[Poison Information Centre North]  
24 h hotline: +49 (0)551 - 19240



	
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<b>EN 1504-2</b>	
<b>Epoxy ST 100</b>	
Surface protection product Coating	
Linear shrinkage	≤ 0.3 %
Compressive strength	Class I: ≥ 35 N/mm <sup>2</sup>
CO <sub>2</sub> permeability	Class III: S <sub>D</sub> > 50 m
Thermal expansion coefficient	NPD
Abrasion resistance	NPD
Cross-cut test	NPD
Capillary water absorption and water permeability	Class III: w < 0.1 kg/m <sup>2</sup> x h <sup>0.5</sup>
Compatibility with alternating temperatures	≥ 2.0 (1.5) N/mm <sup>2</sup>
Resistance to temperature shock	No cracks, blisters, detachment
Resistance to strong chemical attack	Reduction of hardness after 24 h < 50 %
Crack-bridging capacity	NPD
Impact resistance	No cracks or detachment
Pull-off test to assess adhesive pull strength	≥ 2.0 (1.5) N/mm <sup>2</sup>
Reaction to fire	Class E <sub>fl</sub>
Roughness	Class III
Artificial weathering	NPD
Anti-static behaviour	NPD
Adhesive strength on wet concrete	NPD
Dangerous substances	In compliance with EN 1504-2, 5.3
Noise absorption	NPD
Thermal insulation	NPD
Resistance to chemicals	NPD

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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