Product Data Sheet
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Construction

Sikadur®-45 EpoCem®

Repair Mortar

Product Description	**Sikadur®-45 EpoCem®** is a three-component, cementitious, epoxy modified repair mortar. Suitable for use in tropical and hot climatic conditions.
Uses	**Sikadur®-45 EpoCem®** is used as a repair mortar on concrete, mortar or stone substrates, which are to be coated with EpoCem or epoxy based products. **Sikadur®-45 EpoCem®** can be applied onto damp substrates.
Advantages	■ Solvent free ■ Adjustable consistency ■ Excellent frost and de-icing salt resistance ■ Waterproof ■ Water vapour permeable ■ Good water and oil resistance ■ Can be coated with epoxy based products within 24 hours ■ Non corrosive to reinforcement
Test report	LPM, Institute for Preparation and Methodology, Beinwil a See (Switzerland), No. A-19605-1

Product Data

Type	Epoxy resin, curing agent, cements and selected quartz aggregates
Form	Component A: White liquid Component B: Milky liquid Component C: Grey powder Mixed: Grey Mortar
Packaging	37 kg unit (A+B+C) Component A+B: 1.14 kg + 2.86 kg pails Component C: 33 kg bag (30 bags per pallet)
Storage Condition	Store in a dry area between 5ºC and 35ºC. Protect from direct sunlight.
Shelf life	6 months minimum from production date if stored properly in original unopened packaging.

Technical Data

Mixing ratio	A: B: C = 1.14: 2.86 : 32-34 (parts by weight)
Density	Approximately 2.15 kg/lt

Mechanical strengths **at 23°C, 50% rH**		***3 days***	***28 days***
	Compressive strength	35 - 42 N/mm²	48 - 58 N/mm²
	Flexural strength	4 - 6 N/mm²	7 - 9 N/mm²
	Adhesion	2 - 3 N/mm²	(sandblasted concrete, with SikaTop® Armatec® 110 EC bonding agent)
Pot Life	30 – 40 minutes at 20°C 15 – 20 minutes at 30°C		
Water absorption	0.03 kg/m² ·h $^{0.5}$ (water uptake coefficient A)		
Coverage	For 10 mm layer thickness, material consumption is 21.5 kg/m²		
Thickness	Minimum: 6 mm Maximum: 30 mm, apply in several layers for larger repairs		
Modulus of elasticity	34'000 N/mm² (static)		

Application Details

Substrate preparation	All surfaces must be clean, sound, free from dust, grease, oils, standing water and all loosely adhering particles. Cement laitance must be removed and the surfaces to be treated must be mechanically roughened. Concrete must be at least 3 weeks old, depending on climate. Metal surfaces (steel and iron) should be free from scale, rust, oil and grease.
Mixing	Vigorously shake component A (white liquid) and pour into component B. Shake well for at least 30 seconds. Pour binder mixture (components A+B) into a suitable mixing vessel and slowly add component C while stirring constantly. Mix mechanically for at least 3 minutes at low speed (maximum 500 rpm) and until a uniform, homogeneous mortar is achieved. Take care to entrain as little air as possible. Depending on the required consistency, add component C within the limits of 32-34 kg.
Application	The substrate must be pre-wetted to a saturated surface dry condition. First, a bonding slurry of SikaTop® Armatec®-110 EpoCem® must be worked well into the matt moist substrate (refer to separate Data Sheet of SikaTop® Armatec®-110 EpoCem®). The repair mortar is then applied wet on wet into the bonding slurry by trowel and well compacted. As soon as the applied mortar has started to set, its surface can be smoothed with a plastic trowel. If the total layer thickness exceeds 30 mm, **Sikadur®-45 EpoCem®** must be applied in multiple operations. Should a smooth surface finish be required, **Sikadur®-45 EpoCem®** can be coated with Sikagard®-720 EpoCem® or Sikafloor®-81/82 EpoCem®.
Cleaning	Tools and equipment must be cleaned with water immediately after use. Hardened material can only be removed mechanically.
Curing	Protect from wind and direct sunshine for at least 24 hours. **Do not use water under any circumstances!**
Remarks	■ Minimum substrate temperature: +8°C ■ Maximum substrate temperature:+30°C ■ When overcoating with reactive resin systems, a maximum relative humidity of 75% must be observed.
Notes	All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Safety

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request

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