

Sikafloor®-83 EpoCem®-New

Epoxy-Cement Mortar Screed

Construction

Description □	Three-component, cementitious, epoxy-modified mortar screed.																						
Uses □	Trowel applied EpoCem mortar screed with or without top-coat or sealer.																						
Advantages □ □ □ □ □ □ □ □ □ □	<ul style="list-style-type: none"> - Good mechanical strengths, - Good water- and oil resistance, - Excellent adhesion to mat-moist concrete substrates, - Can be trowel finished with little water, - Dense surface, - Waterproof, - Permeable to water vapour, - Fast curing, may be used after short waiting time, - Thermal expansion behaviour similar to concrete, - Will not corrode reinforcement. 																						
Technical Data																							
Colour □	Light-grey (mix)																						
Mix ratio □	Comp. A : B : C = 1,14 : 2,86 : 46-52 (parts by weight)																						
Density (at 20°C) □ □ □ □	Comp. A: 1,06 kg/l Comp. B: 1,03 kg/l Comp. C: 2,07 kg/l (bulk density) Comp. A+B+C: 2,25 kg/l (when mixed)																						
Mechanical strengths □ (23°C/50% r.h.) □ □ □ □	□ □ □ □	□	<table border="0"> <thead> <tr> <th></th> <th>after 24 hrs.</th> <th>after 3 days</th> <th>after 28 days</th> </tr> </thead> <tbody> <tr> <td>- Compressive strength □</td> <td>~ 25 N/mm² □</td> <td>~ 47 N/mm² □</td> <td>~ 64 N/mm²</td> </tr> <tr> <td>- Flexural strength □</td> <td>~ 5 N/mm² □</td> <td>~ 9 N/mm² □</td> <td>~ 11 N/mm²</td> </tr> <tr> <td>- Adhesive tensile strength □</td> <td>- □</td> <td>- □</td> <td>2-3 N/mm²</td> </tr> <tr> <td>- Modulus of elasticity (static) □</td> <td>- □</td> <td>- □</td> <td>~ 30'000 N/mm²</td> </tr> </tbody> </table>		after 24 hrs.	after 3 days	after 28 days	- Compressive strength □	~ 25 N/mm ² □	~ 47 N/mm ² □	~ 64 N/mm ²	- Flexural strength □	~ 5 N/mm ² □	~ 9 N/mm ² □	~ 11 N/mm ²	- Adhesive tensile strength □	- □	- □	2-3 N/mm ²	- Modulus of elasticity (static) □	- □	- □	~ 30'000 N/mm ²
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Reactivity (at 20°C) □ □ □ □ □ □ □ □	Potlife (56kg) □	□	~ 40 minutes																				
	Waiting times:																						
	- Can be walked on after: □	□	16 hrs.																				
	- Light mechanical load after: □	□	2 days																				
	- Fully cured after □	□	7 days																				
	- Can be overcoated with epoxy based material as soon as EpoCem surface has a moisture content of less than 4%, however not earlier than: □ □	□	1 day																				
Storage □ □	Store in dry conditions at temperatures between +10°C to +30°C. Protect components □ A+B from frost, component C from humidity.																						
Shelf life □	12 months from date of production if stored properly in original unopened containers.																						
Packaging □ □ □ □ □ □	Comp. A+B+C: 56 kg ready for use units Comp. A+B: 4 kg predosed units Sika Repair/ Sikafloor Epo-Cem Module (red coloured pails) 40 kg pre-dosed units (10 dosing units) 200 kg pre-dosed units (50 dosing units) Comp. C: 26 kg bags (40 per pallet)																						



Application

Material consumption □ Primer: □ □ SikaTop-Armatec 110 EpoCem, approx. 1-2 kg/m²
 □ Mortar screed: □ Sikafloor-83 EpoCem New (Comp. A+B+C), approx. □ □ □
 □ □ 20-22 kg/m² □ for 9 mm layer thickness.

Limitations □ -□ Layer thickness: min. 7 mm / max. 100 mm
 □ -□ Lay steel reinforcement net ø 6-8 mm from 30 mm layer thickness
 □ -□ Min. substrate temperature: +8°C
 □ -□ Max. substrate temperature:
 □ □ Mixing ratio:
 □ □ A/B : C = 4 : 52+25°C
 □ □ A/B : C = 4 : 46+30°C
 □ - Max. ambient temperature: ~ 30°C
 □ - Max. relative humidity: ~ 80 %
 □ - On no account should any water be added to the mix.

Substrate preparation □ Substrate must be structurally sound and free from all traces of loose material, □ □
 □ laitance, oil and grease. Dry, or damp surface but no standing water.
 □ Adhesive tensile strength > 1,5 N/mm²

Mixing □ Shake comp. A (white liquid) briefly, then pour into comp. B and shake vigorously □ □
 □ for at least 30 seconds. Stir material well before taking it from a drum.
 □ Pour the binder mixture (comp. A+B) into forced action mixer, then add component □ □
 □ C under continuous mixing. Stir mechanically for 3 minutes, at low speed, until a □ □
 □ homogeneous consistency is obtained.

Application □ Prime substrate with SikaTop-Armatec 110 EpoCem. Apply mortar wet on wet to the □ □
 □ still tacky primer and distribute evenly with suitable rake and compact by tamping. □ □
 □ Strike off, using levelling beam across steel rails (8-10 mm), followed by mechanical □ □
 □ smoothing with a synthetic disc, using a little water (to be injected through a jet □ □
 □ situated on top of the disc).
 □ Workability may be adjusted by varying the quantity of C-component slightly (see □ □
 □ mixing ratio).

Cleaning □ Clean all tools with water immediately after use. Once hardened, Sikafloor-83 EpoCem □ □
 □ new (VP) can only be removed mechanically.

Safety Instructions

Safety precautions □ Product may cause skin irritation. Wear gloves and goggles and apply barrier cream □ □
 □ hands. In contact with eyes or mucous membrane, flush immediately with plenty □ □
 □ warm water and seek medical attention without delay.

Ecology □ In liquid state comp. A+B contaminate water.
 □ Do not dispose of into water, soil or sewage system, but according to local regulation.

Toxicity □ Comp. A: Class 4 under the relevant Swiss Health and Safety Codes.
 □ Comp. B: Non-toxic.
 □ Comp. C: Non-toxic.

Transport □ Non-hazardous.

