

Sikafloor® 82 EpoCem

Self-Leveling, Epoxy-Cement Floor Topping for Structural Resurfacing

Description Sikafloor 82 EpoCem is a three-component, solvent-free, odorless, moisture-insensitive, epoxy modified, cementitious, self-leveling mortar. Specifically formulated for leveling and structurally reprofiling on damp "green" or saturated surface dry concrete slabs for thickness of 160-280 mils (4-7 mm).

- Where to Use**
- As a self-leveling mortar for, reprofiling and resurfacing concrete surfaces, thickness varying between 160-280 mils (4-7 mm), before application of: appropriate Sikafloor epoxy-based coatings, polymer floor coatings, waterproofing membranes, tile, carpet and wood floor bonding systems. Other authorized finished flooring systems. Ideal vapor barrier for subsequent coatings.
 - Can be used as a patching and repair mortar for thickness of 1/4-8 in. (6-200 mm) when extended with oven-dried silica sand.

Typical Data

Packaging	62.6 lb (28.3 kg) unit: 1 Jug (A), 1 Jug (B), 1 Bag (C) Component A: Carton containing (4)* 1-gal Jugs Component B: Carton containing (4)* 1-gal Jugs Component C: 53.5 lb bag * Order one carton of Part A (4 Jugs per carton), one carton of Part B (4 jugs per carton) and 4 bags of Part C		
Color	Gray after mixing		
Yield	Primer - Components A+B = 1 gal. (3.85 L) of Sika EpoCem Module Depends on substrate porosity: 200-400 ft ² /gal. (5-10 m ² /L) Primer sold separately Self-Leveling Mortar - Components A+B+C = 3.5 gal. (13.4 L) of mortar/ 24 ft ² (2.2 m ²) for 1/4" (6 mm) application thickness Patching Mortar - Sikafloor 82 EpoCem extended with oven-dried silica sand Sikafloor 82 EpoCem pre-mix 3.54 gal, 62.4 lb (28.3 kg) (13.4 L) Silica sand # 24 (0.3-0.85 mm) 1.82 gal, 22 lb (10 kg) (6.9 L) Silica sand # 16 (0.6-1.6 mm) 1.88 gal, 22 lb (10 kg) (7.1 L) Final mixture 6.0 gal, 106.5 lb (48.3 kg) (22.7 L)		
Shelf Life	1 year in original, unopened packaging. Store dry between 40° - 90°F (5°-32°C). Protect from freezing and high temperatures. If frozen, discard.		
Mixing Ratio	A:B:C = 1:2.7:20.4-22.7 by weight A:B:C = 1:2.8:14.1-15.6 by volume		
Properties at 73°F (23°C) and 50% R.H.			
Density, lb/gal. (kg/L)	Component A	8.84 (1.06)	
	Component B	8.58 (1.03)	
	Component C	12.8 (1.54)	
	Components A+B+C	17.5 (2.1)	
Application Life	Components A+B	40 min.*	
	Components A+B+C	30 min.*	
	Maximum time before de-airing with spiked roller	15 min.	
	*Do not use after this period		
Curing Time	50°F (10°C)**	68°F (20°C)**	86°F (30°C)**
Foot traffic	24 hrs.	15 hrs.	12 hrs.
Light mechanical loading	3 days	2 days	1 day
Overcoatable after	3 days	1 day	1 day
Fully cured after	14 days	7 days	5 days
	**Product cured and tested at temperatures		
Compressive Strength ASTM C109, psi (MPa)			
	1 day	2300 (16)	
	3 days	4900 (34)	
	28 days	6500 (45)	
Bond Strength ASTM D4541	> 250 psi (1.7 MPa) substrate failure		



Advantages	<ul style="list-style-type: none"> ■ Economical, structural resurfacing compound. ■ Waterbased, solvent-free and odorless. ■ Self-leveling and good flowability. ■ Can be overcoated with epoxy resin compounds after 24 hrs. [68°F (20°C)]. ■ Application possible on damp and “green”, cement based substrates. ■ Waterproof yet permeable to water vapor. ■ Fast curing and high early strengths. ■ Excellent adhesion to dry, damp or saturated surface dry concrete substrates. ■ Modulus of elasticity and coefficient of thermal expansion comparable to concrete. ■ Good adhesion after long-term water immersion. ■ Will not corrode reinforcement steel. ■ Meets USDA requirements for incidental food contact.
How to Use Surface Preparation	<p>Surface must be clean, sound and dry. Remove dust, laitance, grease, curing compounds, bond inhibiting impregnations, waxes and any other contaminants. Preparation Work: All projections, rough spots, etc. should be dressed off to achieve a level surface prior to the application.</p> <p>Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blastcleaning or equivalent mechanical means. (CSP3 as per ICRI guidelines).</p>
Mixing	<p>Shake components A and B then pour them into an appropriate [5 gal. (20 L)] sized mixing container. Pre-mix thoroughly with an electric or pneumatic mixer at low speed (300-450 rpm) for 30 sec. Progressively add component C while mixing. Continue to mix thoroughly for 3 min after the complete addition of component C. Use an Exomixer type mixing paddle (recommended model). During the mixing operation, scrape down the sides and bottom of the pail with a flat or straight edge trowel at least once to ensure thorough mixing. Upon completion of mixing, Sikafloor 82 EpoCem should be uniform in consistency.</p>
Application	<p>Primer for Self-Leveling Mortar - Sika EpoCem Module (A+B) at a rate of 200-400 ft²/gal. (5-10 m²/L), using a brush or roller of appropriate length nap to control the coverage according to concrete surface profile. Avoid puddling. Apply self-leveling mortar after 1 hrs. [68°F (20°C)] minimum waiting time, but within 3 hrs [68°F (20°C)] maximum.</p> <p>Note: For porous or excessively absorbent concrete, prime with a second application of Sika EpoCem Module at a rate of 200-400 ft²/gal. (5-10 m²/L).</p> <p>Primer for Extended Mortar - As a primer for extended mortar with oven-dried silica sand, use Sikadur[®] 32 Hi-Mod or Sikafloor[®] 89 in accordance with the respective technical data sheet.</p> <p>Self-Leveling Mortar - After mixing, apply self-leveling mortar without delay using a flooring trowel or screed rake (rubber or metal) to obtain an even coverage. Immediately work with a spiked roller to ensure uniform thickness and to remove entrapped air. Limit mortar coating thickness to 160-280 mils (4-7 mm). When Sikafloor 82 EpoCem has cured sufficiently, sand if required and apply appropriate Sikafloor[®] coating directly over the mortar coating. Maintain the mortar coating in a clean, dry surface condition prior to Sikafloor[®] coating application, ideally within 3 days.</p> <p>Note: Mix consistency may be adjusted to suit application requirements by slightly reducing the powdered component C by a maximum of 10% by weight. A light sprinkling of oven-dried silica sand will prevent the mortar coating from drying out too rapidly. Do not apply excess sand.</p> <p>Extended Mortar with Silica Sand - To proceed with local repairs and slope corrections for thicknesses of 1/4-8 in (6- 200 mm), Sikafloor 82 EpoCem can be extended with oven-dried silica sand.</p>
Limitations	<ul style="list-style-type: none"> ■ Minimal thickness of self-leveling mortar: 160 mils (4 mm). ■ Maximum thickness of self-leveling mortar: 280 mils (7 mm). ■ Minimum substrate temperature: 45°F (8°C). ■ Maximum substrate temperature: 85°F (30°C). ■ Maximum relative humidity 85%. ■ On no account should water be added to the mix. ■ Minimum mortar thickness when used as a vapor barrier for subsequent coating: 160 mils (4 mm). ■ Maximum moisture content in Sikafloor 82 EpoCem prior to subsequent application of an epoxy resin based, Sikafloor coating: 4% by weight.

Industrial Flooring

Caution	WARNING: COMPONENT 'A': IRRITANT, SENSITIZER. Avoid direct contact. Contains Epoxy Novolac Resin (CAS 28064-14-4) and Epoxy Resin (CAS 025068-38-6). May cause eye/ skin/respiratory irritation. Prolonged and/or repeated skin/respiratory contact may cause allergic reaction/sensitization. May be harmful if swallowed. WARNING: COMPONENT 'B': CORROSIVE, IRRITANT, SENSITIZER. Contains Proprietary blend of Aliphatic amines (mixture). Causes eye irritation. Contact with eyes/skin causes burns. May cause skin/respiratory irritation. Prolonged and/or repeated skin contact may result in allergic reaction/sensitization. Harmful if swallowed. WARNING: COMPONENT 'C': IRRITANT, SENSITIZER. Avoid direct contact. Contains Calcium Silicate (CAS 1344-95-2), Magnesium Oxide (CAS 1309-48-4) and Silica Quartz (CAS 14808-60-7). May cause eye/skin/respiratory irritation. Prolonged and/or repeated skin contact may cause allergic reaction/sensitization. May cause delayed lung damage (silicosis). May be harmful if swallowed WARNING: This product contains a chemical known to the State of California to cause cancer. Deliberate concentration of vapors of 'A' &/or 'B' Components for purposes of inhalation is harmful and can be fatal
First Aid	Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin: Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation: Remove person to fresh air. Ingestion: Do not induce vomiting. Dilute with water. Contact a physician. In all cases, contact a physician immediately if symptoms persist.
Handling and Storage	Avoid direct contact with eyes and skin. Wear chemical resistant gloves/goggles/clothing. Avoid breathing vapors. Use with adequate general and local ventilation. In absence of adequate ventilation, use properly fitted NIOSH approved respirator. Wash thoroughly after handling product. Store in a cool, dry, well ventilated area. Keep containers tightly closed.
Clean Up	Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Cured material (when Component 'A' combined with Component 'B' and Component 'C') can only be removed mechanically. In case of spill, ventilate area and contain spill. Collect with absorbent material (Component 'A' and Component 'B'). Shovel Component 'C' into approved container. Dispose of in accordance with current applicable local, state and federal regulations.

KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY

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