

Sikafloor® 110

Epoxy Epo-Rok Mortar System

Description	A three-component, high solids epoxy/modified polyamine concrete floor resurfacer. This product can be placed using a screed and finished by hand troweling or power troweling. Typical thickness is 1/4" (6 mm).
Where to Use	Designed for overlaying new and resurfacing worn concrete floors in light to heavy duty industrial applications. Mixed and applied on the jobsite at a nominal 1/4" thickness from pre-proportioned kits, Sikafloor 110 Epo-Rok mortar is ready for use in less than 24 hours. Formulated to restore and protect concrete floors from the harsh effects of abrasive traffic and strong chemical spillages.
Advantages	<ul style="list-style-type: none"> ■ Pre-proportioned batches for easy job site mixing ■ Protects new concrete from abuse ■ Rejuvenates worn surfaces, to a smooth finish ■ Resists heavy steel-wheeled traffic ■ Excellent resistance to a broad range of chemicals ■ Formulated for easy application ■ Fast curing means reduced downtime ■ Slip resistant surface

How to Use

Surface

Preparation

Surface must be clean, sound and dry. Remove dust, laitance, grease, curing compounds, bond inhibiting impregnations, waxes and any other contaminants. All projections, rough spots, etc should be dressed off to achieve a level surface prior to the application. Concrete should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by shot blasting or equivalent mechanical means. (CSP-3 as per ICRI guidelines). Sweep and vacuum any remaining dirt and dust with a wet/dry vacuum. Removing residual dust will help ensure a tenacious bond between the primer and substrate. Whenever "shot-blasting" is utilized, be careful to leave concrete with a uniform texture. Over "blasting" will result in reduced coverage rates of the primer and/or subsequent topcoats. The compressive strength of the concrete substrate should be at least 3500 psi (24 MPa) at 28 days and at least 250 psi (1.7 MPa) in tension at the time of application of Sikafloor Epo-Rok flooring system.

Typical Data

Colors

Gray. Other colors available with use of Epoxy Color Add and Neutral Aggregate.

Coverage @ 1/4" (6mm)

Approximately 200 sq. ft. at a nominal 1/4" thickness per unit (18.6m² @ 6 mm) over relatively smooth concrete floors. Rough, worn or pitted concrete floors will require additional material. Each unit includes 4- triple kits, 4 pails of Resin, 4 pails of Hardener and 12 bags of aggregate.

Also available in bulk units:

Size Unit	Sq. feet/unit	Thickness
25-gal unit	711 (67.8 m ²)	1/4" (6 mm)
	968 (90 m ²)	3/16" (4.8 mm)
*A 25 gallon unit will take 43 bags of Epo-Rok aggregate.		
275-gal unit	7,816 (743 m ²)	1/4" (6 mm)
	10,560 (981 m ²)	3/16" (4.8 mm)

*A 275 gallon unit will take 469 bags of Epo-Rok aggregate.

Pot Life @ 75°F (24° C)

20 minutes @ 75°F (24°C)

VOC (g/l)

ASTM D2369-07 20.1 g/l

Cure Rate

6-8 hrs. - Foot Traffic

18-24 hrs. - Medium Loads

48+ hrs. - Heavy Loads or Chemical Resistance.

Shelf-Life

Two years in original unopened containers under proper storage conditions. Store dry between 40° - 90°F (5° - 32°C).

Typical Physical Properties:

Compressive Strength	ASTM C-579	11,000 psi (75.8 MPa)
Tensile Strength	ASTM C-307	1,900 psi (13.1 MPa)
Flexural Strength	ASTM D-790	4,100 psi (28.3 MPa)
Flexural Modulus of Elasticity	ASTM D-790	2.01 x 10 ⁶ psi (13,856 MPa)
Hardness Shore D Durometer	ASTM D-2240	87-90
Thermal Coefficient of Linear Expansion	ASTM D-696	3.45 x 10 ⁻⁵ in/in/°F (1.9 x 10 ⁻⁶ mm/mm/°C)

Bond Strength	ACI COM #503 (pp. 1139-1141)	>400+ psi (2.7 MPa) or concrete failure
Indentation	MIL-D-3134F	No Indentation
Abrasion Resistance (CS-17 Wheel, 1000 gm load, 1000 cycles)	ASTM D-1044	0.1 gm max
Water Absorption	ASTM C-413	0.24%
Heat Resistance		150°F (65°C) Continual 200°F (93°C) Intermittent

Above typical values based on cure @ 75° F (24° C)

Packaging: Sikafloor 110 is packaged in pre-proportioned units for easy jobsite mixing and application. Batch kits include 4- triple batches, (4 containers of Resin, 4 containers of Hardener and 12 bags of aggregate).

Bulk Packaging: Each 25-gal unit consists of one 5-gal pail of Part "H" Hardener, four 5-gal pails of Part "R" Resin and requires 43 bags of Epo-Rok aggregate.

Each 275-gal unit consists of one 55-gal drum of Part "H" and four 55-gal drums of Part "R" and requires 469 bags of Epo-Rok aggregate.

Mixing

For bulk packaging when not mixing full units each component must be pre-mixed separately to ensure product uniformity.

Before proceeding with the mixing and application of the Sikafloor 105 (Epo-Rok Primer) and the Sikafloor 110, the surface should be checked to make sure it is properly prepared and the temperature of the area, floor and material is above 60°F (16°C). In addition, a mixing area should be set up nearby with the necessary equipment and material ready.

Triple Kits (1 Pail Sikafloor 110 Epo-Rok Resin, 1 Pail of Sikafloor 110 Epo-Rok Hardner, 3 Bags of Epo-Rok Aggregate)

1. The contents of the Part "H" Hardener is emptied entirely into the container of Part "R" resin.
2. The combination is mixed with a low speed jiffy mixer for 2 - 3 minutes.
3. Transfer the mixed binder (R+H) into a suitable mechanical mixer. Gradually add aggregates (component C) to the binder to avoid excessive air entrapment. Once all ingredients are combined, mix continuously and thoroughly for 90 seconds to ensure complete mixing.

During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing. Mix only that quantity that can be used within its pot life.

Application

Sikafloor 105 Epo-Rok Primer: Apply the primer using a squeegee and back roll to provide uniform coverage. Avoid ponding. Sikafloor 110 Epo-Rok Mortar screed: Maintain all control joints and expansion joints through the screed where movement is expected. Place mortar onto the still uncured primed surface while still tacky and spread using a steel trowel, rake or screed box. If primer becomes tack-free, re-prime substrate. Finish using a clean steel finishing trowel or power trowel. The finished surface should be relatively smooth, free of trowel marks and without any process areas. Whenever the Epo-Rok® Flooring does not abut a vertical surface, the mixed product should be troweled into a chase which is a special groove cut into the concrete floor during the preparation process. Areas around drains and elevation changes or terminations must maintain a minimum 1/4 in (6 mm) thickness.

Limitations

- Minimum/Maximum substrate temperature: 60°F/85°F (15.5°C/30°C).
- Maximum relative humidity: 85%.
- Substrate temperature must be at least 5°F (3°C) above measured dew point.
- Conduct quantitative anhydrous calcium chloride testing in accordance with ASTM-F1869. Maximum acceptable test result is 5 pounds per 1,000 ft² per 24 hours. Determine the surface moisture content by using an impedance moisture meter designed for use on concrete as detailed in ASTM E-1907. Acceptable test results shall be 4% by mass or less. If over, use Sikafloor EpoCem 81/82 or Sikafloor Vapor Block.
- Do not use on exterior, on-grade substrates.
- Terminate at shoulders cut into substrate, avoid feather-edging.
- Freshly applied Sikafloor 110 Epo-Rok mortar should be protected from dampness, condensation and water for at least 24 hrs.
- Do not thin this product. Addition of thinners will slow the cure and reduce the ultimate properties of this product. Critical recoat times will also be affected.
- This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the resurfacer.
- Will discolor over time when exposed to sunlight (UV) and under certain artificial lighting conditions. UV resistant, light stable topcoats are available where ultimate color/clarity retention is required.

Industrial Flooring

Caution	<p>COMPONENT R: WARNING - IRRITANT, SENSITIZER: Contains epoxy resins, Furfuryl Alcohol (CAS 98-00-0). Eye irritant. May cause skin/respiratory irritation. Prolonged and/or repeated contact with skin may cause allergic reaction/sensitization. Deliberate concentration of vapors for purposes of inhalation is harmful and can be fatal. Harmful if swallowed. Strictly follow all use, handling and storage instructions.</p> <p>COMPONENT H: WARNING: CORROSIVE, SENSITIZER, IRRITANT. Contains amines (mixture), bisphenol A (CAS 80-05-7). Contact with skin and eyes causes severe burns. Respiratory irritant. May cause eye/skin irritation. Possible skin sensitization/allergic reaction with prolonged or repeated exposure. Harmful if swallowed. Deliberate concentration of vapors for purposes of inhalation is harmful and can be fatal. Strictly follow all handling, use and storage instructions.</p>
First Aid	<p>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 to fresh air. Ingestion – Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.</p>
Handling and Storage	Wear protective equipment (gloves/safety glasses/clothing) to prevent contact with skin and eyes. Keep container closed in a cool dry place. Wash skin thoroughly with soap and water after use. Use with adequate, general and local, exhaust ventilation. In absence of adequate ventilation, use a properly fitted NIOSH respirator. Remove contaminated clothing. Launder before reuse. Store in cool dry well ventilated area with container closed.
Clean Up	Avoid direct contact with eyes and skin. Wearing chemical resistant goggles/gloves/clothing, collect spill. Ventilate area. In absence of adequate ventilation, use properly fitted NIOSH respirator. Sweep up spill and place in closed container. Dispose of in accordance with applicable local, state and federal environmental regulations.
Additional Info	Technical Data Sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on www.sikafloorusa.com . Proper material application is the responsibility of the user. Site visits made by Sika personnel are for making technical recommendations only and not for supervising or providing quality control. Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or Sika Technical Service.

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

All information provided by Sika Corporation ("Sika") concerning Sika products, including but not limited to, any recommendations and advice relating to the application and use of Sika products, is given in good faith based on Sika's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with Sika's instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika's control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s). Sika reserves the right to change the properties of its products without notice. All sales of Sika product(s) are subject to its current terms and conditions of sale which are available at www.sikacorp.com or by calling 800-933-7452.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Material Safety Data Sheet which are available online at www.sikaconstruction.com or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Technical Data Sheet, product label and Material Safety Data Sheet prior to product use.

Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKASHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKASHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Visit our website at www.sikaconstruction.com

1-800-933-SIKA NATIONWIDE

Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537



Sika®