

PRODUCT DATA SHEET

Sikafloor®-217

VERSATILE UV RESISTANT EPOXY RESIN USED AS A HIGH BUILD COATING AND FOR DECORATIVE QUARTZ AND FLAKE APPLICATIONS

PRODUCT DESCRIPTION

Sikafloor®-217 is a low odor, 100% solids, epoxy resin coating system primarily designed for high build coatings, decorative quartz and decorative flake applications. Sikafloor®-217 can be used as clear or pigmented coat using Sikafloor Epoxy Color Additive-N. Sikafloor®-217 is ideal top coat with an aliphatic urethane when increased chemical and abrasion resistance are required.

USES

Typical applications may include:

- Auto dealerships
- Institutions
- Grocery, department and retail stores
- Pharmaceutical laboratories, production rooms and offices.
- Museum and galleries.
- Animal shelter and veterinary clinics.
- Laboratories, bathroom/shower areas

CHARACTERISTICS / ADVANTAGES

- Good chemical resistance
- 100% solids as supplied
- Attractive, high gloss, reflective coating
- Tough, smooth, non-porous surface is easy to clean
- Durable, impermeable and seamless
- Easily applied with brush, roller or squeegee
- Good abrasion resistance
- Optional integral cove base and curbs may be installed without seams and joints
- Excellent impact resistance
- Unlimited design capabilities available in various textures, patterns and colors

PRODUCT INFORMATION

Packaging	<p>Component A: 3.00 US gal. (11.3 L) Component B: 1.50 US gal. (5.68 L) Component A: 5.00 US gal. (18.9 L)* Component B: 5.00 US gal. (18.9 L) Components A+B: 15 US gal. (56.7 L) * (2 units needed) Mix ratio: 2:1 by volume</p>	<p>Component A: 50 US gal. (189 L)* Component B: 50 US gal. (189 L) Components A+B: 150 US gal. (567 L)</p>
Appearance / Color	Clear or field pigmented with Sikafloor Epoxy Color Additive-N	
Shelf Life	2 years in original unopened container under proper storage conditions	
Storage Conditions	Store dry between 40° - 90°F (4° - 32°C).	
Solid content by mass	100%	
Solid content by volume	100%	
Volatile organic compound (VOC) content	34 g/L	
Shore D Hardness	80	ASTM D2240 at 73°F (23°C) and 50% R.H
Abrasion Resistance	CS-17/1000 cycles/1000g/ 58 mg loss	ASTM D4060 at 73°F (23°C) and 50% R.H
Compressive Strength	Resin (filled,1 or 0.9 with Sikadur® 504) 8,702 psi (60 MPa) (28 days)	ASTM C579 at 73°F (23°C) and 50% R.H
Flexural Strength	9,284 psi (64 MPa)	ASTM D790 at 73°F (23°C) and 50% R.H
Tensile Strength	5,078 psi (35 MPa)	ASTM D638 at 73°F (23°C) and 50% R.H
Elongation at Break	15%	ASTM D638) at 73°F (23°C) and 50% R.H
Tensile Adhesion Strength	>400 psi (2.7 Mpa)	ASTM D4541 at 73°F (23°C) and 50% R.H
Indentation	1.30%	MIL-PRF-24613
Chemical Resistance	Please consult Sikafloor Technical Services.	
Water Absorption	0.13% (2 hours boiling)	ASTM C413 at 73°F (23°C) and 50% R.H
Permeability to Water Vapor	0.41 g/hour/sq-meter	ASTM E96 at 73°F (23°C) and 50% R.H
Coverage	<p>Smooth Finish Coating: Prime coat: 160 - 200 ft² / US gal (3.9 – 6.5 m² / L) at 6 - 10 mils (0.15 – 0.25 mm) wet film thickness (w.f.t.) Wear coat: 100 - 133 ft² / US gal (2.6 - 3.3 m² / L) at 12 - 16 mils (0.30 – 0.40 mm) wet film thickness (w.f.t.)</p>	

Pot Life	Material Temperature		Time	
	+50°F (10°C)		~ 50 minutes	
	+68°F (20°C)		~ 25 minutes	
	+86°F (30°C)		~ 15 minutes	

Cure Time	Ambient & Substrate Temperature	Foot traffic	Light traffic	Full cure
	+50°F (10°C)	~24 hours	~3 days	~10 days
	+68°F (20°C)	~8 hours	~2 days	~7 days
	+86°F (30°C)	~6 hours	~36 hours	~4 days

Waiting / Recoat Times	Before applying second coat of Sikafloor 217 allow:		
	Ambient & Substrate Temperature	Minimum	Maximum
	+50°F (10°C)	~24 hours	~36 hours
	+68°F (20°C)	~8 hours	~24 hours
+86°F (30°C)	~6 hours	~24 hours	

	Before applying Sikafloor Epoxy or Polyurethane on Sikafloor 217 allow:		
	Ambient & Substrate Temperature	Minimum	Maximum
	+50°F (10°C)	~24 hours	~3 days
	+68°F (20°C)	~8 hours	~2 days
+86°F (30°C)	~6 hours	~24 hours	

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, Ambient and Surface Temperature and Dew Point. During installation, confirm and record above values at least once every 3 hours, or more frequently whenever conditions change (e.g. Ambient Temperature rise/fall, Relative Humidity increase/decrease, etc.).

Substrate Moisture Content Moisture content of concrete substrate must be ≤ 4 % by mass (pbw – part by weight) as measured with a Tramex® CME/CMExpert type concrete moisture meter on mechanically prepared surface according to this product data sheet (preparation to CSP-3 to CSP-4 as per ICRI guidelines).

Do not apply to concrete substrate with moisture levels > 4 % mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate is > 4 % by mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor 1620 or Sikafloor 22 NA PurCem or Sikafloor 24NA PurCem.

When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be ≤ 85 %. If values are > 85 % according to ASTM F2170 use Sikafloor 1610 or Sikafloor 22NA or 24NA PurCem. ASTM F2170 testing is not a substitute for measuring substrate moisture content. Use a Tramex® CME/CMExpert type concrete moisture meter as described above.

Material Temperature: Precondition material for at least 24 hours between 65 °F and 75 °F (18–24 °C)

Ambient Temperature: Minimum/Maximum 50/85 °F (10/30 °C)

Substrate Temperature: Minimum/Maximum 50/85 °F (10/30 °C). Substrate temperature must be at least 5 °F (3 °C) above measured Dew Point. Mixing and Application must adhere to Material, Ambient and Substrate temperatures listed above or a decrease in product workability and slower cure rates will occur.

Ambient Relative Humidity: Maximum ambient humidity 85 % (during application and curing)

Dew Point: Beware of condensation! The substrate must be at least 5 °F (3 °C) above the Dew Point to reduce the risk of condensation, which may lead to adhesion failure or “blushing” on the floor finish. Be aware that the substrate temperature may be lower than the ambient temperature.

Mixing

Do not hand mix Sikafloor materials. Mechanically mix only. Do not thin this product. Addition of thinners (e.g. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika warranty. Improper mixing procedure or incorrect mixing ratio may result in moisture sensitivity, whitening, slow cure, soft spots, and other defects.

Application

Apply the primer to the prepared substrate using a squeegee and back roll to provide uniform coverage. Ensure that the substrate is pore-free and pinhole-free and provides uniform and complete coverage over the entire substrate. If necessary, apply an additional coat to ensure the substrate is pore-free and pinhole-free and provides uniform and complete coverage over the entire substrate.

- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur.
- Do not use with PurCem urethane cement topping systems.
- Will discolor over time when exposed to sunlight (UV) and under certain artificial lighting conditions. Use of clear UV resistant top coat may not prevent discoloration of underlying coatings
- Do not apply Sikafloor to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor product after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- This product is not designed for negative side waterproofing.
- Use of unvented heaters and certain heat sources may result in defects (e.g. blushing, whitening, debonding, etc.).
- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- For professional use only by experienced applicators.

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ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

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 removed to achieve a level surface prior to the application.

Concrete Should be cleaned and prepared to achieve a laitance-free and contaminant-free, open textured surface by shot blasting or equivalent mechanical means (CSP-3 to CSP-4 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 “shotblast” pattern may show through the last coat, known as “tracking”.

The compressive strength of the concrete substrate should be at least 3626 psi (25MPa) with a minimum pull off strength of 218 Psi (1.5 Mpa) in tension at the time of application. For other substrates, please contact Sikafloor Technical Services.

MIXING

Mixing Ratio - 2 : 1 by volume.

Each component must be pre-mixed separately to ensure product uniformity.

Clear Resin:

Premix each component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin). Mix the combined components for at least 3 minutes and until uniform using a low speed drill (300 - 450 rpm) and Exomixer or Jiffy type paddle suited to the volume of the mixing container to minimize entrapped air. Be careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. During the mixing operation, scrape

down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing.

Field Pigmented:

Premix each component separately. If color is desired, the appropriate Sikafloor Epoxy Color Additive-N is added to Component A at a rate of 1 quart (1L) per 5 mixed gallons (18.9 L) [Components A+B]] for all colors except colors such as White, Safety Yellow or Tile Red which require 2 quarts (2 L) per 5 mixed gallons (18.9 L) [Components A+B]. Mix Component A and Sikafloor Color Additive-N for 2 minutes and until a uniform color is achieved with a low speed drill (300 - 450 rpm) and Exomixer or Jiffy type paddle suited to the volume. Empty Component B (Hardener) in the correct mix ratio to Component A (Resin) and mix for additional 2 minutes. Be careful not to introduce any air while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing.

Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.

Do not hand mix Sikafloor materials. Mechanically mix only. Do not thin this product. Addition of thinners (e.g. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika warranty. Improper mixing procedure or incorrect mixing ratio may result in moisture sensitivity, whitening, slow cure, soft spots, and other defects

APPLICATION

As Sealer/Intermediate:

Sikafloor 217 is applied with a 12 to 40 mil (0.30 - 1 mm) notched squeegee over a smooth surface and a flat squeegee over a rough decorative quartz or decorative flake surfaces. Back rolling is typically done with an 18 inch (455 mm) wide 3/8-inch (10 mm) nap, solvent-resistant roller cover. Back-roll the Sikafloor 217 only to level the squeegee applied material. Over-rolling and late back rolling may cause bubbling and leave roller marks.

- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapor drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapor drive.

- Do not apply in excess of 40 mils in one coat.
- Freshly applied material should be protected from dampness, condensation and water for at least 72 hrs.
- Will discolor over time when exposed to sunlight (UV) and under certain artificial lighting conditions. Use of clear UV resistant top coat may not prevent discoloration of underlying coatings
- Do not apply Sikafloor to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor product after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Any aggregate used with Sikafloor systems must be non-reactive and oven-dried.
- This product is not designed for negative side waterproofing.
- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist
- Use of unvented heaters and certain heat sources may result in defects (e.g. blushing, whitening, debonding, etc.).
- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- For professional use only by experienced applicators.

OTHER RESTRICTIONS

See Legal Disclaimer.

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LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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 Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL 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.**

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