BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-225 N

Premium UV Resistant Epoxy

PRODUCT DESCRIPTION

Sikafloor®-225 N is a low odor, 100 % solids epoxy resin coating primarily designed for high build coating and decorative quartz/flake applications. It may be applied clear or may be field pigmented using Sikafloor® Epoxy -N Color Additives.

USES

Sikafloor®-225 N may only be used by experienced professionals.

Sikafloor®-225 N is ideal as a broadcast clear, low odor top coat over decorative quartz or vinyl flake floor broadcast systems, as well as slurry applications. Sikafloor®-225 N clear and/or pigmented can also also be top coated with an aliphatic urethane when increased chemical and abrasion resistance are required.

CHARACTERISTICS / ADVANTAGES

- UV Resistance properties exceed what other standard epoxy systems offer.
- 100 % solids as supplied.
- Attractive, high gloss, reflective coating.
- Durable, impermeable and seamless
- Good abrasion resistance.
- Excellent impact resistance.
- Good overall resistance to a wide spectrum of chemicals.

PRODUCT INFORMATION

Packaging	Component A:	5 US gal. (18.9 L) fill in 5 gal. pail*
	Component B:	5 US gal. (18.9 L) fill in 5 gal. pail
	Components A+B:	15 US gal. (56.7 L)
	*(2 units needed)	
Appearance / Color	Clear or Pigmented with Sikafloor Epoxy -N Color Additive. Sikafloor Epoxy -N Color Additive is available in 1 quart (1.0 L) size. Depending on the color chosen, 1 or 2 of quarts of color additive may be required per 3 gal. (11.3 L) mix.	
Shelf Life	24 months in unopened container	
Storage Conditions	Store dry between 40 °F and 90 °F (4–32 °C)	

Volatile organic compound (VOC) content	26 g/L (A+B Combined)	(ASTM D-2369)

TECHNICAL INFORMATION

Shore D Hardness	79–83 (28 days)	ASTM D2240 at 73 °F (23 °C) and 50 % R.H.
Abrasion Resistance	93 mg	(CS-17/1000rot/1000g)
Compressive Strength	2,500 psi	ASTM D695 at 73 °F (23 °C) and 50 % R.H.
Flexural Strength	9,151 psi	ASTM D-790 at 73 °F (23 °C) and 50 % R.H.
Tensile Strength	4,888 psi	ASTM D638 at 73 °F (23 °C) and 50 % R.H
Elongation at Break	14.7%	ASTM D638 at 73 °F (23 °C) and 50 % R.H
Tensile Adhesion Strength	> 400 psi (2.8 MPa) 100 % concrete failure	ASTM D4541 at 73 °F (23 °C) and 50 % R.H
Impact Strength	160 in - lbs. (1.8 kg-m)	ASTM D-2794 at 73 °F (23 °C) and 50 % R.H
Indentation	2.38 %	(MIL-PRF-24613)
Chemical Resistance	Please consult Sikafloor Technical Services	
Thermal Resistance	Pass	ASTM C884 at 73 °F (23 °C) and 50 % R.H
Water Absorption	0.18 % (2 hours boiling)	ASTM C-413 at 73 °F (23 °C) and 50 % R.H
Permeability to Water Vapor	0.32 g/hour/sq-meter	ASTM E96 at 73 °F (23 °C) and 50 % R.H
Gloss Level	90 @60 degrees	ASTM D523 at 73 °F (23 °C) and 50 % R.H
Coefficient of Friction	Dynamic 0.57 Wet 0.65 Dry	ANSI B137.1 at 73 °F (23 °C) and 50 % R.H

APPLICATION INFORMATION

Coverage

Smooth Finish/Wear/Sealer Coating:
80–100 ft² / US gal (1.9–2.5 m² / L) at 15–20 mils (0.38–0.50 mm) wet film thickness (w.f.t.)

Pot Life

Material Temperature	Time
50 °F (10 °C)	~ 30 minutes
68 °F (20 °C)	~ 20 minutes
86 °F (30 °C)	~ 10 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)	~ 12 hours	~ 2 days	~ 7 days
86 °F (30 °C)	~ 8 hours	~ 36 hours	~ 4 days

Waiting / Recoat Times

Before applying second coat Sikafloor® 225N 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	1 day

Before applying Sikafloor® Epoxy or Polyurethane on Sikafloor® 225N 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	1 day

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 dressed off 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/coating 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 3,500 psi (24 MPa) at 28 days and at least 215 psi (1.5 MPa) in tension at the time of application. For other substrates, please contact Sikafloor Technical Services.

Priming

Priming for concrete substrate is required. Prime with either Sikafloor® 160, Sikafloor® 161 or Sikafloor® 1610. Allow the primer to cure (varies with temperature and humidity) until tack free and clear in appearance before applying subsequent coats. Ensure that the primer is pore-free, pinhole-free and provides uniform and complete coverage over the entire substrate. If necessary, apply an additional coat to ensure the coating is pore-free and pinhole-free and provides uniform and complete coverage over the entire concrete substrate.

MIXING

Mixing Ratio - 2 : 1 by volume.
For bulk packaging, when not mixing full units, 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 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 -N Color Additive is added to Component A at a rate of 1 quart per 3 mixed gallon. (i.e. Components A+B) for all colors except bright colors like White, Safety Yellow or Tile Red which require 2 quarts per 3 mixed gallon. (i.e. Components A+B). Mix Component A and Sikafloor Epoxy- N Color Additive for 2 minutes or 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) at the correct mix ratio to Component A (Resin) and mix for additional 2 minutes. 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.

Self Leveling Slurry
Premix each component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin) and add the appropriate Sikafloor® Epoxy Color Additive. Mix the combined components for at least 1 minute 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. Add Sikadur® 504 type filler and mix for additional 2 minutes. 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.
Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.

Pour a bead of product on to the surface to be coated, then spread with a notched squeegee or pin rake to the desired thickness. Roll immediately (within max. 10 minutes of application) in two directions with a spiked roller to ensure even thickness and the removal of entrapped air. To obtain a higher aesthetic finish, spike roll in two directions at a 90 degree angle by passing only once in each direction. The product has a limited Pot Life, see Typical Data.

APPLICATION

Sealer/Intermediate
Sikafloor®-225 N is applied with a 10–20 mils (0.25–0.50 mm) notched squeegee over a smooth surface and a flat squeegee over a rough or decorative quartz surface. Back rolling is typically done with an 18 in. (455 mm) wide 3/8 in. (10 mm) short nap, solvent-resistant roller cover.
Back roll the Sikafloor®-225 N only to level the squeegee applied material. Over-rolling and late back rolling may cause bubbling and leave roller marks. Product has a limited Pot Life, see Typical Data. Do not apply by dipping roller into mixing container. Pour a bead of product in the form of a ribbon on the surface to be coated, then spread with squeegee and back roll.

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 1610 or Sikafloor 22NA 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 PurCem.
ASTM F2170 testing is not a substitute for measuring substrate moisture content. Use aTramex® 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.
Relative Ambient 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 coating to the prepared substrate which should be pore-free and pinholefree. If necessary, apply an additional coat of a suitable material to ensure the substrate is porefree and pinhole-free and provides uniform and complete coverage over the entire substrate.

Results may differ based up on Statistical Variations depending up on mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

- 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.
- 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.
- 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.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

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.

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.

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