BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET
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FLUID-APPLIED FLOORING

Sikafloor®-217

SUPERIOR UV RESISTANT, CLEAR EPOXY RESIN USED AS A PRIMER, BINDER AND TOP COAT

Description

Sikafloor®-217 is a 100 % solids, low VOC, low odour, water clear, high gloss epoxy resin used to create premium quality high build coatings, broadcast or trowel-applied surfacing systems such as Sikafloor® Quartzite®, DecoFlake® and Metallic FX®. Sikafloor®-217 formulation contains state of the art raw materials and additives blended to create an aesthetic, clear epoxy that has the highest possible resistance to ultra violet light colour change over time.

Where to Use

Sikafloor®-217 provides an additionnal measure of long term colour stability in traditional seamless flooring installations that include:

- Laboratories, life sciences, pharmaceutical industries and health care industry.
- Education (e.g. schools and universities).
- Leisure & culture (e.g. museums, stadiums).
- Retail spaces (grocery, department and retail stores).
- Bank, offices and government buildings.
- Animal shelters and veterinary clinics.
- Bathroom and shower areas.

Advantages

- Superior resistance to long term UV light colour change.
- 100 % solids as supplied.
- Superior aesthetic glossy finish.
- Durable, impermeable and seamless surface that is easy to clean.
- Excellent impact resistance.
- Low VOC-content, low odour.
- Meets CFIA and USDA requirements for use in food plants

Technical Data

Packaging	10 L (2.64 US gal.) Unit Component A: 6.67 L (1.76 US gal.) Resin Component B: 3.33 L (0.88 US gal.) Hardener 30 L (7.92 US gal.) Unit Component A: 20 L (5.28 US gal.) Resin Component B: 10 L (2.64 US gal.) Hardener
Colour	Clear or field pigmented with Sikafloor® Epoxy Color Additive
Yield	2 - 4 m²/L (80 - 160 ft² / US gal.) 10 - 20 mils w.f.t. **Note:** These figures do not allow for surface porosity, profile or wastage.
Shelf Life	2 years in original, unopened packaging under proper storage conditions. Store dry at temperatures between 4 and 32 °C (40 and 90 °F). Protect from freezing. If frozen, consult Sika Canada. For best results condition product at temperatures between 18 and 24 °C (65 and 75 °F) for at least 24 hours before use.
Mix Ratio	A:B =2:1 by volume

Properties at 23 °C (73 °F) and 50 % R.H.

Solids Content	~ 100 % by volume
Viscosity (mixed)	~ 500 cps

Pot Life

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

Waiting / Recoat Times

Before applying second coat of Sikafloor®-217 allow:

Ambient and Substrate Temperature	Minimum	Maximum
10 °C (50 °F)	~ 24 hours	~ 36 hours
20 °C (68 °F)	~ 8 hours	~ 24 hours
30 °C (86 °F)	~ 6 hours	~ 24 hours

Cure Times

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

Compressive Strength ASTM C579	~ 49.9 MPa (7250 psi)
Tensile Strength ASTM D638	~ 39.5 MPa (5728 psi)
Elongation ASTM D638	~ 11 %
Pull-off Strength ASTM D7234	> 2.5 MPa (363 psi) concrete failure

Hardness Shore D ASTM D2240	~ 78 - 82
Water Absorption ASTM C413	~ 0.13 % (2 hours boiling)
Gloss (60 degrees) ASTM D523	~ 90
Abrasion Resistance ASTM D4060	
Taber Abraser, Wheel CS 17/1000 g (2.2 lb) / 1000 cycles	~ 76 mg loss
Dynamic Coefficient of Friction (DCOF)	~ 0.32 Wet
ANSI A137.1	~ 0.92 Dry
BOT 3000e	
VOC Content	~ 56 g/L
Chemical Resistance	Consult Sika Canada

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

HOW TO USE

Surface Preparation

Concrete surfaces must be clean, sound and dry. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, form oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by any appropriate mechanical means, in order to achieve an open textured profile equivalent to ICRI / CSP 3 - 4. The compressive strength of the concrete substrate should be at least 25 MPa (3625 psi) at 28 days and a minimum of 1.5 MPa (218 psi) in tension at the time of application of Sikafloor®-217 .
Whenever shot-blasting is utilized, be careful to leave concrete with a uniform texture and not create tracking as this will be visible through coatings and in some cases thin section mortars. Over blasting will also result in reduced coverage rates and increased consumption of the primer. Sweep and vacuum any remaining dirt and dust with a wet/dry vacuum. Removing residual dust will help ensure a tenacious bond between the Sikafloor® primer and substrate.

All projections, rough spots, etc. should be dressed off to achieve a level surface prior to the application. Repairs to cementitious substrates, filling of blowholes, levelling of irregularities, etc. should be carried out using an appropriate moisture tolerant, structural Sika® profiling mortar. Contact Sika Canada for recommendations.

Mixing

Mix Ratio: Components A:B 2:1 by volume.
For part mixing, i.e. when not mixing full units, each component must be pre-agitated separately to ensure product uniformity.

Pre-stir Components A and B separately, making sure all solids, are evenly distributed and uniform consistencies are achieved within each individual Component. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin) or empty Component A into a suitably sized and clean pail and add Component B in the correct ratio. Blend the combined components thoroughly for at least three (3) minutes using a low speed drill (300 - 450 rpm) fitted with an *Exomixer®* or *Jiffy* type paddle suited to the dimensions of the mixing container and keep the mixing paddle in the mix to minimize entrapped air. Take care 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 L (1 quart) per 18.9 L mixed (5 US gal.) [Components A+B)] for all colors except colors such as White, Safety Yellow or Tile Red which require 2 L (2 quarts) per 18.9 L mixed (5 US gal.) [Components A+B]. Mix Component A and Sikafloor Color Additive-N for two (2) minutes and until a uniform color is achieved with a low speed drill (300 - 450 rpm) fitted with *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 two (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.

Note: Do not try to attend to unmixed material that may gather on the sides of the mixing container while mechanical or electrical parts are in motion.

Important: Mixing attempted at material and ambient temperatures below 18 °C (65 °F) will result in a decrease in product workability. Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.

Application

Apply Sikafloor®-217 using a non-marking squeegee or flexible steel trowel, followed by backrolling to provide a uniform texture and appearance. Over-rolling and or late back rolling may cause bubbling and leave roller marks. A second top coat application or a thicker initial application maybe required to achieve a specific texture or desired final appearance.

Note: Sika Canada strongly recommends that a test area be applied to confirm specific top coat selection and application rates required to produce the desired final appearance.

Clean Up

Clean all tools and equipment immediately with Sika® Epoxy Cleaner. Once cured, product can only be removed mechanically. Wash hands and skin thoroughly with hot soapy water or use Sika® Hand Cleaner towels.
Dispose of product in accordance with current applicable local, provincial and federal regulations.

Limitations

- Sikafloor®-217 is best installed by skilled and experienced applicators. Consult Sika Canada for advice and recommendations.
- Prior to application, measure and confirm the following: substrate moisture content, ambient relative humidity, ambient and surface temperature and dew point. During installation, confirm and record above values at least once (1) every three (3) hours, or more frequently whenever conditions change (e.g. ambient temperature rise/fall, relative humidity increase/decrease, etc.).
- Moisture content of concrete substrate must be less than 4 % (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 ICRI / CSP 3 - 4). Do not apply to concrete substrate with moisture levels greater than 4 % (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate exceeds 4 % (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA.
- When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be ≤ 85 %. If values exceed 85 % according to ASTM F2170, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA. ASTM F2170 testing is not a substitute for measuring substrate moisture content with a Tramex® CME/CMExpert type concrete moisture meter as described above.
- Material temperature: Precondition material for at least 24 hours at temperatures between 18 and 24 °C (65 and 75 °F).
- Ambient and substrate temperatures (minimum / maximum): 10 °C / 30 °C (50 °F / 85 °F).
- Mixing and application attempted at material, ambient and/or substrate temperature conditions less than 18 °C (65 °F) will result in a decrease in product workability and slower cure rates.
- **Beware of condensation!** The substrate must be at least 3 °C (5 °F) 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.
- Do not hand mix Sikafloor® materials. Mechanically mix only. Pre-stir each component thoroughly and do not allow mixed material to stand and settle. Failure to pre-stir and keep product agitated will result in variation in gloss levels appearance and performance.
- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapour drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapour drive.
- Freshly applied material should be protected from dampness, condensation and water for at least 72 hours.
- 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.).
- Mechanical, chemical & physical properties will be fully achieved at full cure.
- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- Published Dynamic Coefficient of Friction (DCOF) wet and dry test results are approximate values based on laboratory test samples produced in a controlled environment following the application instructions published on the product data sheet. Resin flooring products are hand applied finishes subject to minor variations in surface texture due to influences partly beyond Sika Canada's control. Substrate profile, environmental conditions, variable regional aggregate size, shape and gradation, aggregate distribution, uniformity of applied resin mil thickness, and application technique can all affect the final DCOF test results achieved. Adequate provision should be made by the client throughout the selection and installation process to ensure the finished surface texture meets the end user's traction requirements.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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