



## PRODUCT DATA SHEET

# Sikafloor®-217

Superior UV resistant, epoxy resin primer, binder, and top coat, clear or pigmented



### PRODUCT DESCRIPTION

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

### WHERE TO USE

- Sikafloor®-217 may only be used by experienced professionals.
- Sikafloor®-217 provides an additional measure of long term colour stability in traditional interior seamless flooring installations that include:
  - Laboratories, life sciences, pharmaceutical and health care
  - 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

### PRODUCT INFORMATION

#### 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

#### Appearance / Colour

Water-Clear /

Pigmented with Sikafloor® Epoxy Color Additive or Sika® Metallic Powder

### CHARACTERISTICS / 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.

### ENVIRONMENTAL INFORMATION

- Conformity with LEED® v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations.
- Conformity with LEED® v4 EQc 2: Low-Emitting Materials.

### APPROVALS / CERTIFICATES

- Meets CFIA and USDA requirements for use in food plants.

<b>Shelf Life</b>	2 years when stored in original, unopened packaging.
<b>Storage Conditions</b>	Store dry at temperatures between 5 °C to 32 °C (41 °F to 89 °F). Protect from freezing. If frozen, contact Sika Canada.
<b>Volatile organic compound (VOC) content</b>	~56 g/L
<b>Viscosity</b>	~500 cps (A+B Mixed)
<b>Solid content by volume</b>	~100 %
<b>CSC MasterFormat®</b>	<b>09 67 00   FLUID-APPLIED FLOORING</b>

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~80	(ASTM D2240)
<b>Abrasion Resistance</b>	~76 mg loss CS 17 /1000 cycles/1000 g (2.2 lb)	(ASTM D4060)
<b>Compressive Strength</b>	~49.9 MPa (~7250 psi)	(ASTM C579)
<b>Tensile Strength</b>	~39.5 MPa (~5728 psi)	(ASTM D638)
<b>Elongation at Break</b>	~11 %	(ASTM D638)
<b>Pull-Off Strength</b>	> 2.5 MPa (> 363 psi) concrete failure	(ASTM D7234)
<b>Chemical Resistance</b>	Consult Sika Canada	
<b>Coefficient of Friction</b>	~0.32 Wet (smooth coating) ~0.92 Dry (smooth coating)	ANSI A326.3 (DCOF - BOT 3000e)
<b>Water Absorption</b>	~0.13 % (2 hours boiling)	(ASTM C413)
<b>Gloss Level</b>	~90 (60 degrees)	(ASTM D523)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	A:B =2:1 by volume
<b>Consumption</b>	2 m <sup>2</sup> /L - 4 m <sup>2</sup> /L (80 ft <sup>2</sup> / US gal. - 160 ft <sup>2</sup> / US gal.) 10 - 20 mils w.f.t. Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Allowance for pigmented product must be also made for variation in film thickness or number of coats required to achieve opacity with light (i.e. white) or bright colours (i.e. reds and yellows) on dark substrates. Test sections are recommended to establish correct coverage.
<b>Product Temperature</b>	Condition product between 18 °C to 30 °C (65 °F to 86 °F) before using.
<b>Ambient Air Temperature</b>	Minimum 10 °C (50 °F) Maximum 30 °C (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.
<b>Relative Air Humidity</b>	Maximum 85 % (during application and curing)
<b>Dew Point</b>	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.

**Substrate Temperature**

Minimum 10 °C (50 °F) Maximum 30 °C (85 °F)

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.

**Substrate Moisture Content**

Moisture content of concrete substrate must be  $\leq 4\%$  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 ICRI / CSP 3 - 4). Do not apply to concrete substrate with moisture levels exceeding 4 % mass (pbw – part by weight) as measured with Tramex® CME / CMExpert type concrete moisture meter. If moisture content of concrete substrate exceeds 4 % by mass (pbw – part by weight) as measured with Tramex® CME / CMExpert type concrete moisture meter, use Sikafloor®-1620 or Sikafloor®-81 EpoCem®CA or Sikafloor® 22NA PurCem®. When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be  $\leq 85\%$ . If values exceed 85 % according to ASTM F2170, use Sikafloor®-1620 or Sikafloor®-81 EpoCem®CA or Sikafloor® 22NA PurCem®. ASTM F2170 testing is not a substitute for measuring substrate moisture content with a Tramex® CME / CMExpert type concrete moisture meter as described above.

**Pot Life**

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

**Curing Time**

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

Curing times will vary according to air and substrate temperature and relative humidity.

Protect from dampness, condensation and water contact during the initial 72 hour cure period.

Mechanical, chemical and physical properties will be fully achieved at full cure.

**Waiting Time / Overcoating**

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

**Note:** If the Waiting / Overcoating Time has passed, the previous coat must be lightly sanded, to remove all gloss; vacuum cleaning and solvent wiping will be necessary to remove all traces of dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.

## BASIS OF PRODUCT DATA

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.

Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

## LIMITATIONS

- 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.).
- 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.
- Not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Not suitable for exterior direct sunlight exposure; use for interior walls and floors only.
- Will discolour over time when exposed to sunlight (UV) and under certain artificial lighting conditions.
- Do not apply to substrates exposed to extreme thermal shock.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on the curing product. To avoid this occurrence, heaters must be exhausted to the exterior of the building to avoid defects such as amine blush, whitening, loss of adhesion or other surface deficiencies.
- 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.

## ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### 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.

### MIXING

#### Mix Ratio: A:B 2:1 by volume.

Do not hand mix Sikafloor® materials. Mechanically mix only.

#### Clear Resin:

Pre-stir Components A and B separately, making sure all solids, are evenly distributed and uniform consistencies are achieved within each individual Component and do not allow mixed material to stand and settle. 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. When completely mixed, Sikafloor®-217 should be uniform in consistency. Mix only that quantity which can be used within its pot life.

### Field Pigmented:

Pre-stir Components A, B and Colour

Additive separately, making sure all solids, are evenly distributed and uniform consistencies are achieved within each individual Component and do not allow mixed material to stand and settle. Add the appropriate Sikafloor Epoxy Color Additive to Component A at a rate of 1 L (1 quart) per 18.9 L (5 US gal.) of mixed Components A+B for all colours except bright colours such as White, Safety Yellow or Tile Red which require 2 L (2 quarts) per 18.9 L (5 US gal.) of mixed Components A+B. Mix Component A and Sikafloor Color Additive for two (2) minutes until a uniform colour is achieved with a low speed drill (300 - 450 rpm) fitted with Exomixer® or Jiffy type mixing paddle (recommended model) suited to the volume of the mixing container. 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. When completely mixed, Sikafloor®-217 should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

### 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.

### MAINTENANCE

Please refer to Sikafloor® Systems - Protection, Cleaning and Maintenance Guidelines product data sheet.

### LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

### LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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#### Other locations

Boisbriand (Quebec)  
Brantford; Cambridge;  
Sudbury; Toronto (Ontario)  
Edmonton (Alberta)  
Surrey (British Columbia)

#### Product Data Sheet

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