Product Data Sheet Edition 4.26.2013 Sikafloor® 340

# Sikafloor® 340

# Abrasion and UV Resistant Aliphatic Urethane

Description	Sikafloor 340 is an aliphatic urethane with excellent chemical resistance and UV resistance.
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# Where to Use Sikafloor 340 is typically used in areas such as aircraft hangars, light to medium traffic areas, where light reflectance and chemical resistance to spills are required. It can be used as two part clear and three part pigmented coating.

#### Advantages ■ VOC compliant in 340 g/L regulated districts

- Excellent UV resistance
  - Light reflectance
  - Good stain resistance
  - High abrasion resistance
  - Excellent chemical resistance
  - Wide range of colors using Sikafloor Urethane Color Additive
  - Clear or Pigmented

## TYPICAL 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.

Packaging	Component A: 1.50 gal. (5.67 L) Isocyanate	Component A: 5 gal. (18.9 L)* Isocyanate
	Component B: 1.00 gal. (3.78L) Catalyst	Component B: 5 gal. (18.9 L) Catalyst

Component B: 1.00 gal. (3.78L) Catalyst
Color Additive: 0.25 gal (0.95 L)
Component A+B: 2.75 gal. (10.41 L)

Component B: 5 gal. (18.9 L) Catalyst
Component A+B: 15 gal. (56.7 L)

\*(2 Units needed)

(Only recommended for pigmented use)

Color Clear or pigmented with Sikafloor Polyurethane Color Additive; 1-quart (0.95 L) size

per 2.5 mixed US gallon.

**Coverage** Depending upon profile of existing surface, coverage is approximately

350 ft2 per gallon (8.6m2/L) per coat,

Clear at 350 - 400 ft<sup>2</sup> per gallon (8.6 - 9.8 m<sup>2</sup> /L) at 4 - 5 wet mils

Wet: 4.0 - 5.0 mils / coat Dry: 2.0 - 3.0 mils / coat

Two (2) coats are suggested over a primed surface

(The above figures do not allow for surface profile or wastage)

86°F (30°C) ~ 15 minutes

\*Do not apply after indicated Pot Life is exceeded. End of Pot Life is not visible.

Waiting /

Recoat Times Before applying second coat of Sikafloor 340 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

Cure Times Ambient & Substrate Temperature +50°F (10°C) Full cure 24 hours 6 days 710 days

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

Abrasion Resistance ASTM D4060 18 mg loss

(CS-17 Wheel, 1000 gm load, 1000 cycles)

VOC Content ASTM D2369 ≤ 280 g/L

ASTM D2369 With Sikafloor Urethane Color Add Only ≤ 290 g/L

Slip Resistance Equivalent to ASTM D2047 Passes

Chemical Resistance Equivalent to ASTM D2047 Passes
Please consult Sikafloor Technical Services.



#### 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-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 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 107**, **Sikafloor 160**, **Sikafloor 1610**. Allow the primer to cure (varies with temperature and humidity) until tack free before applying subsequent coats. Ensure that the primer is pore-free, pinhole-free and provides uniform and complete coverage over the entire substrate.

Please refer to the individual most current and respective Product Data Sheet for specific and detailed information.

#### 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 and divide each component into smaller potion (i.e. 2 gal. Component - A and 1 gal. Component - B). Empty contents of Component A or correctly measured part of such into a suitably sized and clean mixing container and add contents of Component B or correct ratio of such. Prepare only that quantity which can be used within the pot life of the material. 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 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.

#### Mixing Ratio - 1.5:1 by volume + 1 quart Sikafloor Polyurethane Color Additive.

#### Field Pigmented:

Premix each component separately. If color is desired, the appropriate Sikafloor Urethane Color Additive is added to Component A at a rate of 1 quart per 2.50 mixed gallons (i.e. Components A+B). Mix Component A (Isocyanate) and Sikafloor Polyurethane 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 (Catalyst) in the correct mix ratio to component - A (Isocyanate) 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 coating. 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.

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

#### **Application**

Pour a thin bead (approximately 6"-12" wide) of Sikafloor 340 on the surface, use a flat squeegee to distribute the material evenly and back roll. Back roll the Sikafloor 340 only to level the thickness of material applied. Do not apply in excess of 5 mils (0.125mm) WFT, failure of the coating may occur. Divide the floor into sections (at expansion joints or doorways when possible) that can be completed without stopping. Where a section will end, it should be taped off to form a straight line providing a clean edge for an adjacent section. Back rolling is typically done with an 18-inch (.5 m) short nap, 3/8-inch (9.5 mm), solvent resistant roller cover. Overrolling may cause non-uniform sections and bubbling.

## Limitations

#### **Notes on 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 81 EpoCem.



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 81 EpoCem.

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 between 65° to 75°F (18° to 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 attempted at Material, Ambient and/or Substrate Temperature conditions less than 65°F (18°C) will result in a decrease in product workability and slower cure rates.

Relative Ambient Humidity: Minimum ambient humidity 30%

Maximum ambient humidity 75% (during application and curing)

Dew Point: Beware of condensation!

The substrate must be at least  $5^{\circ}F$  ( $3^{\circ}C$ ) 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.

**Application:** Apply the coating to the prepared substrate which should be pore-free and pinhole-free. If necessary, apply an additional coat of a suitable material 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. 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.
- 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.
- Vapors from this product can be objectionable to people unaccustomed to the odor; do not apply in or around buildings occupied by non-construction personnel without consulting building management.
- Do not apply at a mil thickness greater than recommended. Too thick of an application may result in solvent entrapment and improper curing.
- For professional use only by experienced applicators.

Caution

COMPONENT A: WARNING: COMBUSTIBLE, IRRITANT. Contains Solvents (Mixture). Keep away from heat, sparks, electrical equipment, open flame and other sources of ignition. DO NOT SMOKE. Use only in well ventilated areas. Open doors and windows during use. May cause eye/respiratory irritation. Harmful if absorbed through skin or swallowed. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Deliberate misuse by inhalation of vapors can be harmful or fatal.

Strictly follow all use, handling and storage instructions.

COMPONENT B: WARNING: COMBUSTIBLE, IRRITANT, SENSITIZER. Contains Polyisocyanate Prepolymer (Mixture), 1,2,4-Trimethylbenzene (CAS 95-63-6) Keep away from heat, sparks, electrical equipment, open flame and other sources of ignition. DO NOT SMOKE. Use only in well ventilated areas. Open doors and windows during use. Eye irritant. May cause skin irritation. May cause skin and/or respiratory sensitization after prolonged and repeated contact. Harmful if swallowed. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Deliberate misuse by inhalation of vapors can be harmful or fatal.

Strictly follow all use, handling and storage instructions.



#### First Aid

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.

#### Handling and Storage

Keep away from heat, sparks, electrical equipment, open flame and other sources of ignition. DO NOT SMOKE. Open doors and windows during use. Use adequate local and mechanical ventilation. Wear protective equipment (chemically resistant gloves/goggles/ clothing) to prevent direct contact with skin and eyes. Use properly fitted NIOSH vapor cartridge respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing after use. Store product in tightly sealed containers in a cool, dry well ventilated area at temperatures between 40°F and 95°F and away from ignition sources. Empty containers may contain product residue including flammable or explosive vapors. Do not cut or puncture empty container.

#### Clean Up

In case of spill, keep away from heat, sparks, electrical equipment, open flame and other sources of ignition. DO NOT SMOKE. Ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.

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

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