

Sikafloor® 310

Low VOC Chemical Resistant Aliphatic Urethane

Description	A unique low VOC two component, high solids, moisture cured urethane with outstanding abrasion and chemical resistance. Can be used as a clear coating (topcoat) or in combination with Sikafloor 310 Color Additive.
Where to Use	Sikafloor 310 is designed for areas where a low odor chemical resistant UV stable urethane is necessary including automotive bays, aircraft hangars and pharmaceutical laboratories.
Advantages	<ul style="list-style-type: none"> ■ Durability surpasses standard urethanes ■ Low VOC/Low Odor ■ Maintains a gloss finish ■ Excellent UV light resistance
Chemical Resistance	Please refer to the Sikafloor 310 chemical resistance guide or contact Sika Industrial Flooring Technical Service for specific chemical recommendations at 800-933-SIKA.
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 and contaminant free, open textured surface by shot blasting or equivalent mechanical means. (CSP-3 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. It is also possible that the texture of the "shot-blast" pattern may show through the last coat. This is known as "tracking". The compressive strength of the concrete substrate should be at least 3500 psi (24 MPa) at 28 days and at least 250 psi (1.7 MPa) in tension at the time of application of Sikafloor 107 primer.
Priming	Sikafloor 107 Primer should be applied at 275-300 sq. ft. (6.75 - 7.36 m ²) per gallon, over damp or dry concrete. Rough concrete surfaces will result in reduced coverage. Allow to cure (varies with temperature and humidity) until tack free and clear in appearance before applying subsequent coats.

Typical Data

Colors	Clear, White, Gray, Oxford Gray with Sikafloor 310 Additive	
Coverage	266-400 sq. ft. per gallon	
Dry Film Thickness	3.4 -5.1 mils	
Pot Life, pigmented	Approx. 3 hrs. @ 75°F	
Shelf Life	1 year in unopened containers	
Cure Rate for 3 mils @ 77°F, 50%RH	Store dry between 40° - 90°F (5°- 32°C)	
	5 hrs. (clear)	
	6 hrs. (pigmented)	
	24 hrs. - Traffic	

Typical Physical Properties:

Viscosity, cps Brookfield	ASTM D2196	Resin - 1000-2000 Hardener - 200
Abrasion Resistance, mg loss	ASTM D4060	25-30 (clear) 20-25 (pigmented)
Taber Abrader		
VOC (g/l)	ASTM D2369-07	64.4 g/l

Above typical values based on 7 days cure @ 75°F, 55% RH

Packaging: Sikafloor 310 is packaged in pre-proportioned units for easy jobsite mixing and application. Each unit consists of 1 container of component "R" Resin, 1 container of component "H" Hardener. Unit volume is 0.8 gallons.



Mixing	<p>It is important to remember that this coating has a limited pot life. Therefore it is recommended to check and make sure everything is in order before starting the mixing sequence.</p> <p>Color Additives: This system can be used with a special Sikafloor 310 Color Additive. Thoroughly mix the Sikafloor 310 Color Additive before adding to Sikafloor 310 to ensure uniform color. The appropriate Sikafloor 310 Color Additive is added to the Resin at the rate of one (1) pint per container. Mix at low speed for a minimum of two minutes. The Resin must be thoroughly mixed with a Jiffy mixer and slow speed drill prior to the addition of the hardener. Add the Sikafloor 310 Part H and mix with a very low speed jiffy mixer, until completely blended. This will take about 3 minutes. Be careful not to introduce any air bubbles while mixing. Due to the difference in viscosity between the Resin and Hardener, care must be taken to ensure that both components are thoroughly mixed in order to avoid weak or partially cured spots in the coating.</p>
Application	<p>Apply the Sikafloor 310 at the rate of 266-400 sq.ft./gal. with a high quality 1/4" nap roller. To ensure the proper appearance and physical properties of the finished floor, it is critical that the material not be applied above or below the recommended rate. Do not back roll into the coating after it has set as humidity will be reintroduced into the system.</p> <p>NOTE: Do not apply this product at greater than 6 wet mils. Foaming of the product will occur.</p>
Cure Mechanism	<p>At a temperature of 77°F and 50% Relative Humidity, clear and pigmented Sikafloor 310 will be tack free in 5-6 hours. Allow 24 hours at this temperature and RH before placing the floor in service. Lower temperatures and RH levels will extend the cure times.</p>
Critical Recoat Time	<p>It is important to apply subsequent coats of this product within 6 to 24 hours (under normal curing conditions). If this coating is allowed to cure longer than the 24 hours before subsequent recoats, the surface will need to be lightly abraded with a 100 grit screen.</p>
Limitations	<ul style="list-style-type: none"> ■ Minimum/Maximum substrate temperature: 60°F/85°F (15.5°C/30°C). ■ Minimum/Maximum relative humidity: 10%/85%. ■ Substrate temperature must be at least 5°F (3°C) above measured dew point. ■ Conduct quantitative anhydrous calcium chloride testing in accordance with ASTM-F1869. Maximum acceptable test result is 3 pounds per 1,000 ft² per 24 hours. Determine the surface moisture content by using an impedance moisture meter designed for use on concrete as detailed in ASTM E-1907. Acceptable test results shall be 4% by mass or less. If over, use Sikafloor EpoCem 81/82 or Sikafloor Vapor Block. ■ Do not use on exterior, on-grade substrates. ■ Freshly applied Sikafloor 310 should be protected from dampness, condensation and water for at least 24 hrs. ■ Do not thin this product. Addition of thinners will slow the cure and reduce the ultimate properties of this product. ■ Do not exceed 6 wet mils when applying this product. Foaming of the film will occur.
Caution	<p>COMPONENT R: WARNING - IRRITANT, SENSITIZER: Contains Polyisocyanate Prepolymer (Mixture), Ether (CAS 88917-22-0). May cause eye/skin/respiratory irritation. May cause skin and/or respiratory sensitization after prolonged contact. Harmful if swallowed. Keep away from heat, sparks, electrical equipment, and open flame. DO NOT SMOKE. Use only in well ventilated areas.</p> <p>COMPONENT H: WARNING: CORROSIVE, SENSITIZER, IRRITANT. Contains Acetone (CAS 67-64-1), May cause respiratory irritation. Causes severe eye/skin irritation. Harmful if swallowed. Keep away from heat, sparks, electrical equipment, and open flame. DO NOT SMOKE. Use only in well ventilated areas.</p> <p>Deliberate concentration of vapors of 'R' &/or 'H' components for purposes of inhalation is harmful and can be fatal.</p>
First Aid	<p>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.</p>
Handling and Storage	<p>Keep away from heat, sparks, electrical equipment, and open flame. VAPORS MAY IGNITE AND EXPLODE. 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 90°F away from ignition sources.</p>
Clean Up	<p>In case of spill, eliminate all ignition and heat sources. 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.</p>

Industrial Flooring

Additional Info	Technical Data Sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on www.sikaflorusa.com . Proper material application is the responsibility of the user. Site visits made by Sika personnel are for making technical recommendations only and not for supervising or providing quality control. Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or Sika Technical Service.	
Trouble Shooting	Problem Observed	Possible Causes
	Fisheyes	Oil Contamination; Improper substrate cleaning; Mold Release Agents; Improper Mixing.
	Peeling From Substrate	Insufficient preparation process; Oil impregnation; Moisture in concrete.
	Peeling Between Coats	Past critical recoat time; Contamination between coats.
	Coating Soft, Dulling	Improper mixing; Use of thinner in product; Extreme weather conditions.
	Slow Cure	Low floor and ambient temperatures; Use of thinner in product; Improper mixing; Product applied too thin.
	Fast Cure	High floor and ambient temperatures.
	Bubbling	Excessive substrate outgassing due to rising temperatures; Working product past pot life; Improper mixing overworked the product.

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