

Sikafloor® 315

Abrasion Resistant Aliphatic Polyurethane

Description	Sikafloor 315 high solids, abrasion resistant, aliphatic polyurethane coating. It can be applied as a two or three part clear, or a three or four part pigmented coating. An optional wear additive is included for increased abrasion resistance.
Where to Use	Sikafloor 315 is utilized to provide excellent adhesion and wear resistant properties to epoxy primed concrete substrates. The aliphatic non yellowing nature of the coating makes it ideal for areas that are exposed to the sun and UV light sources. The coating contains proprietary, hard fillers which increase abrasion resistance by up to 50% over that of standard polyurethane coatings. Sikafloor 315 is formulated for use in high traffic areas such as truck loading docks, warehouses and high traffic aisle ways.
Advantages	<ul style="list-style-type: none"> ■ Superior abrasion resistance ■ Excellent impact resistance ■ UV resistance to yellowing
Chemical Resistance	Please refer to the Sikafloor 315 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 and or Sikafloor 315.
Priming	Sikafloor 107 or Sikafloor 207 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

Shelf Life	2 years in original unopened container under proper storage conditions. Store dry between 40° - 90°F (5° - 32°C).	
Coverage	Coverage of materials on a primed or prepared substrate will vary depending on the porosity or density, profile and texture of the substrate. Sikafloor 315 is applied at 3-3.5 wet mils. The dry film thickness is 2.7-3.1 mils. The theoretical coverages are: Pigmented Sikafloor 315: 2.92 gallon mix = 1441 sq. ft. (493 sq. ft./gal) Pigmented Sikafloor 315 without wear additive: 2.59 gallon mix = 1281 sq. ft. (493 sq. ft./gal) Unpigmented Sikafloor 315: 2.67 gallon mix = 1317 sq. ft. (493 sq. ft./gal) Unpigmented Sikafloor 315 without wear additive: 2.34 gallon mix = 1157 sq. ft. (493 sq. ft./gal) Applied at 3-3.5 wet mils.	
Cure Rate @ 75°F (24° C), 50% RH	Tack Free	5-6 hours
	Dry Hard	8-10 hours
	Full Cure	5-7 days
Physical Properties:		
Abrasion Resistance (CS-17 Wheel, 1000 gm load, 1000 cycles)	ASTM D 4060	0.01 - 0.02 grams
Hardness	(ASTM D 3363 Pencil)	2H to 3H
Bond Strength - Primed Concrete	ASTM D-4541	>400 psi (2.76 MPa) (100% concrete failure)
Gloss	(60°) 60-70	
Coefficient Of Friction	ASTM 2047	0.6 - 0.7

Dry Film Thickness	2.88 mils @ 3.2 wet mil application thickness	
Tensile Strength	ASTM D2370	2882 psi.
Percent Elongation	ASTM D2370	2.29
VOC (g/l)	ASTM D2369-07	Clear, No Wearing Aggregate 114 g/l
	ASTM D2369-07	With Wearing Aggregate Only <100 g/l
	ASTM D2369-07	With Sikafloor Urethane Color Add Only <50 g/l
Packaging:		
Component	Container Size	
Part Isocyanate	2 Gallon pail with 2 gallons volume	
Part Catalyst	Half Gallon can with 0.34 gallons volume	
Part D Wear Additive	Half gallon (7 lbs.)	
Colorpack	Quart Can full	
Note: Two Mixes per Kit.		

Mixing Do not mix more material than can be applied within the working time limits at the actual field temperature. Empty completely the Isocyanate portion into a clean mixing container large enough to accommodate the mix size type. Then with a Jiffy mix paddle and drill, add the Catalyst. Mix at low speed for 1 minute (300 - 450 rpm). Then add Quart of color pack slowly under agitation. Mix this for 2 minutes. Then slowly add in the wear additive F-5/HG with the mixer running to avoid clumping. Mix for 2 minutes.

Application The floor should be divided into sections that can be completed without stopping. Sections should be divided at expansion joints or doorways when possible. The end of a section should be taped off to form a straight line providing a clean edge for an adjacent section. The Sikafloor 315 must be applied with a 3/8" nap roller. The roller should be wet in a roller tray or bucket and then the excess coating is removed by lightly rolling in the tray or bucket screen so as to avoid drips. Then apply 3 pairs of 8-10 foot long paths on to the floor. Then spread the material with roller passes perpendicular to the paths of coating. This material may be aggressively rolled to even the thickness. It is extremely important to apply the coating at a rate of 3-3.5 mils to achieve proper appearance, texture, and color development. If areas are too thick, the coating may blister, if too thin, the coating will appear very flat in sheen. It is also very important to remix the material often with the roller in the tray to keep the F-5 aggregate from settling. Cross roll the entire area with straight uninterrupted passes across the entire width of the floor. This will reduce roller marks and make the color even. If appearance is still not uniform after a few of these passes, repeat this procedure.

- Limitations**
- Minimum/Maximum substrate temperature: 60°F/85°F (15.5°C/30°C).
 - Minimum/Maximum relative humidity: 30%/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 315 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.

Caution **COMPONENT CATALYST: WARNING DANGER: COMBUSTIBLE, IRRITANT, SENSITIZER.** Contains Ether (CAS 88971-22-0), Xylene (CAS:1330-20-7) and Dibutyltin Dilaurate (CAS: 77-58-7). May cause eye/skin irritation. May cause skin sensitization. **Keep away from heat, sparks, sunlight, electrical equipment or flame. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE.** Use only in well ventilated areas. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. **Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal. WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.**
COMPONENT ISOCYANATE: CAUTION: IRRITANT, SENSITIZER. Contains Polyisocyanate Prepolymer (Mixture). May cause eye/skin/respiratory irritation. May cause skin and/or respiratory sensitization after prolonged contact. Harmful if swallowed. **Deliberate concentration of vapors of 'Catalyst' &/or 'Isocyanate' components for purposes of inhalation is harmful and can be fatal.**
ADDITIVE: CAUTION: IRRITANT. Contains Aluminum Oxide (CAS: 1344-28-1)). Causes eye irritation. May cause skin and respiratory irritation. May be harmful if swallowed.

Industrial Flooring

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	COMPONENT CATALYST: Keep away from heat, sparks, sunlight, electrical equipment or 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. COMPONENT ISOCYANATE & ADDITIVE: Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse.	
Clean Up	COMPONENT CATALYST: 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. COMPONENT ISOCYANATE & ADDITIVE: Use personal protective equipment (chemical resistant gloves/ goggles/clothing). Without direct contact, sweep up spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable local, state, and federal regulations.	
Additional Info	Technical Data Sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on www.sikafloorusa.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.

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

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