Industrial Flooring

Sikafloor®510

Polyaspartic Resin System

Description

Sikafloor 510 is a clear two-component, solvent-free, high solids, low-viscosity, high strength, polyaspartic resin system. It is designed to be installed as a clear topcoat over a quartz or flake broadcast system where a low VOC, quick cure, flexiblle, UV resistance finish coat is necessary. Sikafloor 510 is available in clear or with Sikafloor Urethane Color Additive to achieve a variety of colors.

Where to Use

Typically used in food processing plants, chemical storage areas, warehouses, washrooms, laboratories, food preparation areas and chemical process plants.

Advantages

- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Refer to Chemical Resistance Chart.
- Cures quickly down to 40 F (4.5 C)
- Durable and seamless.
- Impermeable.
- Superior mechanical and chemical resistance.
- Superior aesthetic finish.
- Low maintenance.
- Does not support growth of bacteria or fungus.
- High density prevents dirt penetration, which provides easy cleaning.
- Solvent-free.
- Meets USDA requirements for incidental food contact

How to Use

Surface Preparation

Surface must be clean, sound and dry. Remove dust, laitance, grease, curing compounds, preparation bond inhibiting impregnations, waxes and any other contaminants. Preparation Work: 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 blastcleaning or equivalent mechanical means. (CSP3 as per ICRI guidelines). The compressive strength of the concrete should be at least 3500 psi (24 MPa) at 28 days and at least 200 psi (1.4 MPa) in tension. When not applying Sikafloor 510 over properly prepared concrete or a freshly broadcasted quartz or vinyl flake substrate, sand the surface with a rotary sanding machine and an 80 grit screen to achieve a properly prepared surface. This would included freshly applied Sikafloor Epoxy coating or Sikafloor 510 itself.

Typical Data

Packaging
One Carton containing one (1) gallon can of Part A and one (1) gallon can of Part B
Fill Volumes/Weights
Part A - 0.9 gallons or 7.76 lbs.
Part B - 0.6 gallons or 5.76 lbs.

Mixing Ratio
A:B = 3:2 by volume

Viscosity
Part A - 900 cp
Part B - 700 cp
Part A & B mixed - 850 cps

Yield
10-15 mils, 106-160 ft²/gal per coat.
160-200 ft²/unit
(These figures do not allow for surface porosity, profile or wastage)

Shelf Life
Components A+B: 1 year in original unopened packaging.
Store dry between 50°-77°F (10°-25°C). Protect from freezing.

VOC (g/l)
ASTM D2369-07 25.6 g/l

Application Temperature
40°F min., 85°F max. (4°C min., 30°C max.)

Curing Time at 73°F (23°C) & 60% RH (Humidity Dependant)
Usable Pot life 15-20 min.
Waiting Time Between Coats 90 minutes min./24 hrs. max
Cure to foot traffic 4 hrs.
Cure to light traffic 8 hrs.
Full cure 5 days

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Density (ASTM C-905) -	1.08
Tensile Strength (ASTM C-307)	6500 psi
Elongation (ASTM D638)	10%
Bond Strength (ASTM D-1583)	500 psi (3.5 MPa) (substrate failure)
Hardness, Shore D (ASTM D-2240)	75
Coefficient of Friction (ASTM D-1894-61T)	0.8

Application

Mixing

Primer, Binder and Sealer: Empty entire content of component A and component B into a clean mixing pail. Mix for 3 min using a low-speed drill (300-450 rpm) to minimize entrapping air. Use an Exomixer type mixing paddle (recommended model). During the mixing operation, scrape down the sides and bottom of the pail with a flat or straight edge trowel at least once to ensure thorough mixing. When completely mixed, Sikafloor 510 should be uniform in color and consistency. Mix only that quantity that can be used within its pot life.

Tooling and Finishing

As a topcoat for a broadcast quartz or flake system: Squeegee and roll apply Sikafloor 510 to provide a uniform coverage without ponding at a thickness of 10 - 15 mils (160 - 107 sq.ft./gal). When required, repeat this procedure for a second coat.

As a stand alone quick cure colored quartz system:

Broadcast Step 1: Primer - Apply neat Sikafloor 510 over the slab as a primer using a squeegee and roller without ponding at 5 - 10 mils (160 - 320 sq.ft./gal). Broadcast pre-blended colored quartz aggregates into the primer at 0.25 - 0.5 lb/sq ft. Broadcast in a manner so that aggregates fall vertically into the primer.

Step 2: Binder - Lightly abraid the Sikafloor 510 Primer coat using a rotary sanding machine and an 80 grit screen. Vacuum to achieve a clean, dust free surface. Apply neat binder Sikafloor 510 over primed surface using a notched squeegee and backroll immediately with a roller to provide a uniform surface. Typical thickness is 15 - 30 mils (105 - 53 sq.ft./gal)

Step 3: Broadcast Application - Broadcast pre-blended colored quartz aggregates into the binder to saturation, typically 0.5 - 1.0 lbs/sq.ft. Broadcast in a manner so that aggregates fall vertically into the binder. Broadcast to the maximum fill rate. This will provide a completed application, resulting in dry broadcast aggregates covering the entire surface. Allow broadcast system to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess aggregates from the surface. Removal of excess aggregates is carried out by sweeping up the aggregates, followed by vacuuming, until surface is free of all loose particles and dust.

Step 4: Finish Coat - Squeegee and roll apply Sikafloor 510 to provide a uniform coverage without ponding at a thickness of 10 - 15 mils (160 - 107 sq.ft./gal). When required, repeat this procedure for a second coat.

Limitations

- Minimum substrate temperature: 40°F (4°C).
- Substrate temperature must be 5°F (3°C) above measured dew point.
- 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 PurCem.
- 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. If over use Sikafloor Epocem 81/82.
- Do not use on exterior, on-grade substrates.
- Do not apply in areas where the humidity is greater than 85%.

Caution

Part A - WARNING: CORROSIVE, IRRITANT, SENSITIZER. Contains Aldimine (CAS 54914-37-3), Aspartic Ester (Trade Secret), Petroleum Distillates, Hydrotreated Light (CAS 64742-46-7). Contact with skin and eyes causes severe burns. Causes eye/skin/respiratory irritation. Prolonged and/or repeated skin contact may cause an allergic reaction/sensitization. Harmful if swallowed. Deliberate concentration of vapors for purposes of inhalation is harmful and can be fatal. Strictly follow all usage, handling and storage instructions.

Part B - WARNING: IRRITANT, SENSITIZER. Contains Homopolymer of 1, 6 Hexamethylene Diisocyanate (CAS 28182-81-2). Causes eye irritation/skin/respiratory irritation. May cause allergic skin/respiratory reaction/sensitization after prolonged and/or repeated contact. Harmful if swallowed. Deliberate concentration of vapors of for purposes of inhalation is harmful and can be fatal. Strictly follow all usage, 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.

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Handling and Storage	Avoid direct contact with eyes and skin. Wear chemical resistant gloves/goggles/clothing. Avoid breathing vapors. Use with adequate general and local ventilation. In absence of adequate ventilation, use properly fitted NIOSH approved respirator. Wash thoroughly after handling product. Store in a cool, dry, well ventilated area. Keep containers tightly closed.
Clean Up	Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Cured material (when Component 'A' combined with Component 'B' and Component 'C') can only be removed mechanically. In case of spill, ventilate area and contain spill. Collect with absorbent material (Component 'A' and Component 'B') and place in properly sealed container. Shovel Component 'C' into approved container. Dispose of in accordance with current applicable local, state and federal regulations.

Visit our website at www.sikaconstruction.com **1-800-933-SIKA NATIONWIDE**

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