BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-521 LS

ABRASION AND UV RESISTANT LOWER SOLIDS POLYASPARTIC COATING

PRODUCT DESCRIPTION

Sikafloor®-521 LS is a clear two-component, lower solids, low-viscosity, fast cure, UV resistant polyaspartic coating. It can be field pigmented with Sikafloor Urethane Pigment Packs and provides a cost-effective option where thinner film build and faster turnaround are desired.

USES

Sikafloor®-521 LS may only be used by experienced professionals.

- As a body/grout/topcoat where UV resistance and quick cure are required.
- As a protective finish coat in decorative quartz or flake flooring systems.
- As a maintenance recoat where reduced thickness is acceptable.

CHARACTERISTICS / ADVANTAGES

- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents
- Fast curing, rapid return to service
- Excellent UV stability and gloss retention
- Good chemical and abrasion resistance
- Lower viscosity for easy application
- Low maintenance
- Clear or field pigmented finish

PRODUCT INFORMATION

Packaging	Component A	2 US gal. (7.6 L) fill in 2 gal pail
	Component B	1 US gal. (3.8 L) fill in 2 gal pail
	Component A+B	3 US gal. (11.4 L)
Color	Clear or pigmented with Sikafloor Urethane Pigment Pack	
Shelf Life	1 year in original unopened container under proper storage conditions	
Storage Conditions	Store dry between 40 °F (4 °C) and 90 °F (32 °C)	

TECHNICAL INFORMATION

Shore D Hardness	72 10 -14 layers of 10 mil draw downs	ASTM D2240 at 73 °F (23 °C) and 50% R.H
Abrasion Resistance	CS-17/1000 cycles/1000g ~50 mg loss	ASTM D4060 at 73 °F (23 °C) and 50% R.H
Tensile Strength	2,700 psi	ASTM D412 at 73 °F (23 °C) and 50% R.H
Tensile Adhesion Strength	>400 psi (2.7 MPa) Concrete Failure	ASTM D7234 at 73 °F (23 °C) and 50% R.H
Chemical Resistance	Please consult Sikafloor Technical Services	
Elongation at break	80%	ASTM D412 at 73 °F (23 °C) and 50% R.H

APPLICATION INFORMATION

Mixing Ratio

2 : 1 by volume

Coverage

107 - 160 ft² / US gal (2.6 - 3.9 m² / L) at 10 - 15 mils (0.25 - 0.38 mm) wet film thickness (w.f.t.)
Maximum thickness = 20 mils

Pot Life

Material Temperature	Time
+ 50 °F (10 °C)	~ 80 minutes
+ 68 °F (20 °C)	~ 60 minutes
+ 86 °F (30 °C)	~ 30 minutes

*Pot life is based on clear resin, Sikafloor Urethane Pigment Packs can shorten the working time of Sikafloor®-521 LS
*Note: High humidiy will shorten working times and cure rate

Cure Time

Ambient & Substrate Temperature	Foot Traffic	Light Traffic	Full Cure
+ 68 °F (20 °C)	~ 4 hours	~ 8 hours	~ 5 days

Waiting / Recoat Times

Before applying second coat of Sikafloor®-521 LS allow:

Ambient & Substrate Temperature	Minimum	Maximum
+ 68 °F (20 °C)	120 minutes	24 hours

BASIS OF PRODUCT 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.

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.).

Material Temperature: Precondition material for at least 24 hours between 65 °F to 75 °F (18 °C 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 must adhere to Material, Ambient and Substrate temperatures listed above or a decrease in product workability and cure rates will be impacted.

Ambient Relative Humidity: Maximum ambient humidity 85% (during application and curing)

Dew Point: Beware of condensation! The substrate must be at least 5 °F (3 °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. solvent, etc.) will affect cure and reduce ulitmate properties of this product. Use of thinners will void any applicable Sika warranty. Improper mixing procedure or incorrect mixing ratio may result in moisture sensitivity, whitening, slow cure, soft spots, and other defects.

Limitations:
- 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, it may be used for a visual indication of vapor drive.
- 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 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.
- Use of unvented heaters and certain heat sources may result in defects (e.g. blushing, whitening, debonding, ect.).
- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- For professional use only by experienced applicators.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Surface must be clean, sound, dry and primed.

Priming for concrete substrate is required. Prime with appropriate Sikafloor primer. Allow the primer to cure (varies with temperatureand 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.

MIXING

Mixing Ratio - 2 : 1 by volume

APPLICATION

Clear Resin:
Premix each Component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin). 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 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.

Field Pigmented:
If color is desired, the appropriate Sikafloor Urethane Pigment Pack is added to Component A at a rate of 1 quart per 3 mixed gallons (i.e. Components A+B). Mix Component A and Sikafloor Urethane Pigment Pack 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 (Hardener) in the correct mix ratio to Component A (Resin) 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 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. *Sikafloor Urethane Pigment Pack can shorten the working time (Pot Life) of Sikafloor®-521 LS.

Do not mix more material than can be applied within the working time limits at the actual field temperature.

As a pigmented topcoat/sealer coat for smooth or broadcast finish:
Squeegee and back roll Sikafloor®-521 LS using a 3/8" nap roller to provide a uniform coverage without ponding at a thickness of 10 - 15 mils (107 - 160 ft²/gal). If required, repeat this procedure for a second coat.

As a clear topcoat for a broadcast quartz or flake system:
Squeegee and back roll Sikafloor®-521 LS using a 3/8" nap roller to provide a uniform coverage without ponding at a thickness of 10 -15 mils (107 - 160 ft²/gal). If required, repeat this procedure for a second coat.

As a double broadcast quick cure decorative quartz and flake system:
Step 1: Primer - Prime with appropriate Sikafloor primer.
Step 2: First Broadcast Application - Squeegee and back roll Sikafloor®-521 LS using a 3/8" nap roller to provide a uniform coverage without ponding at a thickness of 10 - 15 mils (107 - 160 ft²/gal). Broadcast pre-blended decorative flakes or colored quartz aggregates into the binder to saturation. Broadcast in a manner so that the flakes or colored quartz aggregates fall vertically into the binder. Broadcast to rejection. Ensure the broadcast flakes/aggregates cover entire surface. Allow broadcast system to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess flakes/aggregates from the surface. Removal of excess flakes/aggregates is carried out by sweeping/scraping up the flakes/aggregates, followed by vacuuming, until surface is free of all loose particles and dust.
Step 3: Second Broadcast Application - Squeegee and back roll Sikafloor®-521 LS using a 3/8" nap roller to provide a uniform coverage without ponding at a thickness of 10 - 15 mils (107 - 160 ft2/gal). Broadcast pre-blended decorative flakes or colored quartz aggregates into the binder to saturation. Broadcast in a manner so that aggregates fall vertically into the binder. Broadcast to rejection. Ensure that broadcast flakes/aggregates cover entire surface. Allow broadcast system to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess flakes/aggregates from the surface. Removal of excess flakes/aggregates is carried out by sweeping/scraping up the flakes/aggregates, followed by vacuuming, until surface is free of all loose particles and dust.
Step 4: Finish Coat - Squeegee and back roll Sikafloor®-521 LS using a 3/8" nap roller to provide uniform coverage without ponding at a thickness of 10 - 15 mils (107 - 160 ft²/gal). When required, repeat this procedure for a second coat.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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