BUILDING TRUST

PRODUCT DATA SHEET

# Sikafloor®-515

Abrasion and UV Resistant Clear Polyaspartic Resin System

## PRODUCT DESCRIPTION

Sikafloor®-515 is a clear, two-component, high-solids, low-viscosity, high-strength, polyaspartic resin system with exceptional resistance to tire marking; making it ideal as a garage floor finish. Sikafloor®-515 is designed to be installed as a clear topcoat over a quartz or flake broadcast system where a low VOC, quick cure, flexible, and UV resistance finish coat is necessary. Sikafloor 515 is available only in clear.

## USES

Sikafloor®-515 may only be used by experienced professionals.

Typically used in decorative applications where enhanced resistance to tire marking is desired; garages, automotive service bays and show rooms, warehouses.

## CHARACTERISTICS / ADVANTAGES

- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts, and solvents. Refer to Sikafloor 515 chemical resistance guide
- Enhanced resistance to hot tire marking
- Cures quickly, fast turnaround
- Durable, impermeable and seamless
- Superior mechanical resistance
- Excellent chemical resistance
- Superior aesthetic finish
- Excellent UV resistance
- Low maintenance.
- Does not support growth of bacteria or fungus
- High density prevents dirt penetration, which provides easy cleaning
- Meets USDA requirements for incidental food contact

## PRODUCT INFORMATION

| | | |
|---|---|---|
| **Packaging** | Component A : | 5 gallon (18.92L) fill in 5 gallon pail |
| | Component B : | 3.33 gallon (12.60L) fill in 5 gallon pail |
| | Component Kit (A+B): | 8.33 gallon (31.53L) kit |
| **Appearance / Color** | Clear only, do not add any type of pigment product | |
| **Shelf Life** | 12 months in original unopened container under proper storage conditions | |
| **Storage Conditions** | Store and transport dry at temperatures between 50° - 77°F (10° - 25°C). | |
| **Volatile organic compound (VOC) content** | 83 g/L | Components A+B |

## TECHNICAL INFORMATION

| | | |
|---|---|---|
| **Shore D Hardness** | 75 | ASTM D2240<br>at 73°F (23°C) and 50% R.H |
| **Tensile Strength** | 6500 psi (44.8 MPa) | ASTM C307<br>at 73°F (23°C) and 50% R.H |
| **Tensile Adhesion Strength** | 2.7 MPa (> 400 psi) 100 % concrete failure | ASTM D7234<br>at 73°F (23°C) and 50% R.H |
| **Chemical Resistance** | Consult with Technical Service | |
| **Coefficient of Friction** | 0.25 Wet (smooth high gloss, clear)<br>0.99 Dry (smooth high gloss, clear) | ANSI A326<br>at 73°F (23°C) and 50% R.H |

## APPLICATION INFORMATION

**Mixing Ratio**

Clear: A:B = 3:2 by volume.

**Coverage**

**Smooth Finish Coating:**
**Prime coat:** 160 – 200 ft² / US gal. (3.9 – 4.9 m² / L ) at 8 – 10 mil (0.20 – 0.25 mm) wet film thickness (w.f.t.)
**Wear coat:** 105 – 135 ft² / US gal. ( 2.6 – 3.3 m² / L) at 12 – 15 mil (0.30 – 0.38 mm) wet film thickness (w.f.t.)
**Note:** *These figures do not allow for surface porosity, profile or wastage.*

**Ambient Air Temperature**

40 °F min. 86 °F max. (4 °C min. 30 °C max.)

**Substrate Temperature**

40 °F min. 86 °F max. (4 °C min. 30 °C max. )

**Pot Life**

| Material Temperature | Time |
|---|---|
| 50 °F (10 °C ) | ~ 20 minutes |
| 68 °F (20 °C ) | ~ 15 minutes |
| 86 °F (30 °C) | ~ 10 minutes |

*Note: High humidity will shorten working times and cure rate / low humidity will length 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®-515

| Ambient & Substrate Temperature | Minimum | Maximum |
|---|---|---|
| 68 °F (20 °C) | ~ 90 minutes | ~ 24 hours |

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods. Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

## LIMITATIONS

Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, Ambient and SurfaceTemperature and Dew Point. During installation, confirm and record above values at least once (1) every three (3) hours, or more frequently whenever conditions change (e.g. Ambient Temperature

rise/fall, Relative Humidity increase/decrease, etc.).

**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 ICRI / CSP 3 - 4). Do not apply to concrete substrate with moisture levels exceeding 4 % mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate exceeds 4 % by mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor®-1610 or Sikafloor®-22 NA PurCem®.
ASTM F2170 testing is not a substitute for measuring substrate moisture content.
Use a Tramex® CME/CMExpert type concrete moisture meter as described above.
**Material temperature:** Precondition material for at least 24 hours between 18 to 24 °C (65 to 75 °F).
**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 slower cure rates will occur.

**Relative Ambient Humidity**
Minimum ambient humidity 30%
Maximum ambient humidity 75% (during application and curing)
**Note:** Low Relative Ambient Humidity may result in slower cure.
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. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika warranty.

**Application**: If Sikafloor 515 is used as a primer, apply the coating to the prepared substrate using a squeegee and back roll to provide uniform coverage. Ensure that the coating is pore-free and pinhole-free and provides uniform and complete coverage over the entire substrate. If necessary, apply an additional coat to ensure the coating 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.
- Do not apply Sikafloor to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to the 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.
- 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.
- 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

### 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 removed 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/ coating and the substrate.

Whenever “shot-blasting” is utilized, be carefu
l 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 3626 psi (25 MPa) with a minimum pull off strength of 218 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 160, Sikafloor 161, Sikafloor 1610, Sikafloor 165 FS or Sikafloor 2570. 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. When using Sikafloor®-515 as primer extra precaution has to be taken on the substrate preparation and on the moisture content.

## MIXING

### Mixing Ratio - 3:2 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. 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 excessive 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.

## APPLICATION

### As a clear topcoat for a broadcast quartz or flake systems
Squeegee and back roll Sikafloor®-515 to provide a uniform coverage without ponding at a thickness of 10 – 15 mil (0.25 – 0.38 mm ) 107 – 160 ft²/US gal. (2.6 – 3.9 m²/L) . If required, repeat this procedure for a second coat.

### As a stand-alone double broadcast quick cure decorative quartz and flake system

**Step 1: Primer -** Apply neat coat of Sikafloor®-515 on a prepared substrate as a primer using a squeegee and back roll to a uniform coverage without ponding at 8 – 10 mil (0.20 – 0.25 mm) 160 – 200 ft²/US gal. (3.9 – 4.9 m²/L).

**Note:** When using Sikafloor®-515 as primer extra precaution has to be taken on the substrate preparation and moisture content, see product limitations for further details.

### Step 2: First Broadcast Application
Squeegee and back roll Sikafloor®-515 to provide a uniform coverage without ponding at a thickness of 10 – 15 mil ( 0.25 – 0.38 mm ) 107 – 160 ft²/US gal. (2.6 – 3.9 m²/L). Broadcast pre-blended decorative flakes or coloured quartz ggregates into the binder to saturation. Broadcast in a manner so that the flakes or coloured quartz 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 by sweeping up and vacuuming, until surface is free of all loose particles and dust.

### Step 3: Second Broadcast Application
Squeegee and back roll Sikafloor®-515 to provide a uniform coverage without ponding at a thickness of 10 – 15 mil (0.25 – 0.38 mm) 107 – 160 ft²/US gal. (2.6 – 3.9 m²/L). Broadcast pre-blended decorative flakes or coloured 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 by sweeping up and vacuuming, until surface is free of all loose particles and dust.

### Step 4: Finish Coat
Squeegee and back roll Sikafloor®-515 to provide a uniform coverage without ponding at a thickness 10 – 15 mil (0.25 – 0.38 mm ) 107 – 160 ft²/US gal. (2.6 – 3.9 m² /L ). When required, repeat this procedure for a second coat.

**Critical Recoat / Overcoat Time**
It is important to apply subsequent coats of this and other products within 6 to 24 hours (under normal curing conditions). If this coating is allowed to cure longer than the 24 hours before subsequent recoats, light sanding, vacuum cleaning and solvent wiping will be necessary. The floor surface should be sanded / abraded to the effect that a uniform dullness is achieved. There should be no gloss present on the floor after vacuuming and before applying the next 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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