

SYSTEM DATA SHEET

Sikalastic®-720/745 AL Traffic System

TWO-COMPONENT, FAST-CURING, SOLVENT-FREE, CRACK-BRIDGING, ELASTOMERIC POLYURETHANE BASE COAT

PRODUCT DESCRIPTION

Sikalastic®-720/745 AL Traffic System is a two-component, aromatic, chemically cured, elastomeric polyurethane coating intended for use as the waterproofing base coat under polyurethane or epoxy wearing surfaces for pedestrian and vehicular traffic bearing applications, and as the waterproofing base coat under a separate wearing course such as concrete or asphalt pavement, and tile in a setting bed.

USES

Sikalastic®-720/745 AL Traffic System may only be used by experienced professionals.

- Multi-story parking garages.
- Parking decks and ramps.
- Foot bridges and walkways.
- Mechanical rooms.
- Stadiums and arena.
- Plaza and rooftop decks.
- Balconies.

CHARACTERISTICS / ADVANTAGES

- Low odor and fast turnaround.
- Excellent crack-bridging properties and flexibility, even at low temperatures.
- Excellent wear resistance.
- Resistant to water and de-icing salts.
- Alkaline resistant.
- UV resistant.

APPROVALS / STANDARDS

- Sikalastic 720/745/745 Class A fire rating (ASTM E108)

MIAMI-DADE COUNTY
APPROVED

SEALANT · WATERPROOFING & RESTORATION INSTITUTE

Issued to: Sika Corporation
Product: Sikalastic 720/745 AL Traffic System

ASTM D 412: Tensile Strength of Topcoat
Sikalastic 745 AL Topcoat
Tensile Strength: 2,912 psi;
Elongation: 254% Pass ✓

ASTM D 4541: Adhesion of Base Coat
Sikalastic 720 with Fast Track Primer
Pull-off Adhesion: 531 psi Pass ✓

ASTM D 4060: Abrasion Resistance of Top Coat
Sikalastic 745 AL Topcoat
Abrasion Resistance: 4 mgms loss
– mgms loss/1,000 cycles Pass ✓

Validation Date: 10/12/15-10/11/20
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DECK COATING VALIDATION
www.swrionline.org

PRODUCT INFORMATION

Packaging	20 gal. kit - four 5 gal. pails (net 4 gal. each) Part A and four 1 gal. cans Part B.		
Shelf Life	1 year in original, unopened containers.		
Storage Conditions	Store dry at 40–95 °F (4–35 °C). Condition material to 65–85 °F (18–30 °C) before using.		
Solid content by volume	720 Base 100 %	745 AL 100 %	(ASTM D-2697) 75 °F (24 °C) 50% RH

SYSTEM INFORMATION

System Structure	System Guide	Pedestrian Traffic	Heavy Pedestrian/ Light Vehicular	Heavy Vehicular Traffic - Seed and Lock	Heavy Vehicular Traffic - Seed and backroll
Primer	Sikalastic® Primer 300 sf/gal.*	Sikalastic® Primer 300 sf/gal.*	Sikalastic® Primer 300 sf/gal.*	Sikalastic® Primer 300 sf/gal.*	Sikalastic® Primer 300 sf/gal.*
720 Detail Coat	23 mils wet/dry	23 mils wet/dry	23 mils wet/dry	23 mils wet/dry	23 mils wet/dry
720 Base Coat	23 mils wet/dry 70 sf/gal.	23 mils wet/dry 70 sf/gal.	23 mils wet/dry 70 sf/gal.	23 mils wet/dry 70 sf/gal.	23 mils wet/dry 70 sf/gal.
745 AL Wear Coat	12 mils wet/dry 133 sf/gal.	18 mils wet/dry 90 sf/gal.	16 mils wet/dry 100 sf/gal.	16 mils wet/dry 100 sf/gal.	16 mils wet/dry 100 sf/gal.
Aggregate	10-20 lbs/100 sf seeded/back-rolled	10-20 lbs/100 sf seeded/back-rolled	40-60 lbs/100 sf seeded to re-fusal	40-60 lbs/100 sf seeded to re-fusal	10-20 lbs/100 sf seeded/back-rolled
745 AL Top Coat			16 mils wet/dry 80 sf/gal	16 mils wet/dry 80 sf/gal	16 mils wet/dry 80 sf/gal
Aggregate					10-20 lbs/100 sf seeded/ back-rolled
Total Thickness	35 mils dry (excluding aggregate)	41 mils dry (excluding aggregate)	55 mils dry (excluding aggregate)	55 mils dry (excluding aggregate)	55 mils dry (excluding aggregate)

*Consult Sika for other primer options for recover and high moisture content substrates.

NOTE: Coverage rates provided are optimal and are not guaranteed - coverage rates will vary depending on temperature, surface roughness and porosity, aggregate selection and embedment, and application technique.

Colour	Gray		
Volatile organic compound (VOC) content	720 Base <10 g/l	745 AL <10 g/l	(ASTM D-2369-81) 75 °F (24 °C) 50% RH

TECHNICAL INFORMATION

Shore A Hardness	80 +/- 5	(ASTM D-2240) 75 °F (24 °C) 50% RH
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Tensile Strength	2500 +/- 100 psi	(ASTM D-412) 75 °F (24 °C) 50% RH
Tear Strength	300 +/- 25 pli	(Die C, ASTM D-624) 75 °F (24 °C) 50% RH
Elongation at Break	800 +/- 50 %	(ASTM D-412) 75 °F (24 °C) 50% RH
Chemical Resistance	Resistant to de-icing salts, and alkaline concrete and cementitious mortars/tile adhesives.	

APPLICATION INFORMATION

Coverage	70 ft ² /gal. at 23 wet mils (23 dry mils)	
Pot Life	720 Base 10–15 minutes	745 AL 20–30 minutes

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Surface must be clean, dry and sound with an open texture. 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. Minimum Pull-Off Adhesion strength 220 psi (ASTM D7234).

Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blast cleaning or equivalent mechanical means (CSP 3-4 per ICRI guidelines). Minimum compressive strength of concrete 3 500 psi .

Plywood - Should be clean and smooth, APA and exterior grade, not less than 1/2" thick, and spaced and supported according to APA guidelines. Joints should be sealed with Sikaflex® sealant and detailed and may need embedded fabric reinforcement.

Metal - Should be thoroughly cleaned by grinding or blast cleaning.

APPLICATION

Priming

Primer Selection - Determine maximum moisture content of concrete substrate by weight with a Tramex CME or CMExpert type concrete moisture meter. NOTE: For new plywood decks, a primer is not required.

Sikalastic® Primer – For concrete decks with a maximum moisture content of 4 % by weight, apply Sikalastic® Primer with a flat squeegee or phenolic resin core roller at approximately 250–300 sf/gal. and work well into the

substrate to ensure adequate penetration and sealing, and puddles are avoided. Sikalastic® Primer is not suitable for metal substrates. Refer to separate primer data sheet for additional information.

Sikalastic® FTP Primer – For concrete decks with a maximum moisture content of 4 % by weight, and for weathered plywood decks, apply Sikalastic® FTP Primer with a flat squeegee or phenolic resin core roller at approximately 300 sf/gal. and work well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Sikalastic® FTP Primer is not suitable for metal substrates. Refer to separate primer data sheet for additional information.

Sikalastic® PF Lo-VOC Primer - For concrete and plywood decks with a porous or rough surface, and for metal flanges and penetrations, use Sikalastic® PF Lo-VOC Primer. For exterior exposed concrete decks with a maximum moisture content of 4 % by weight, interior protected concrete decks with a maximum moisture content of 5 % by weight, and plywood decks, apply Sikalastic® PF Lo-VOC Primer with a flat squeegee or phenolic resin core roller at approximately 200 sf/gal. and work well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. For exterior exposed concrete decks with a maximum moisture content of 5 % by weight, two applications of Sikalastic® PF Lo-VOC Primer are required. Refer to separate primer data sheet for additional information.

Sikalastic® MT Primer - For concrete with a maximum moisture content of 5 % by weight, and for metal flanges and penetrations, apply Sikalastic® MT Primer with a flat squeegee or roller at approximately 175 sf/gal. For concrete decks with a maximum moisture content of 6% by weight, apply two applications of Sikalastic® MT Primer with a flat squeegee or phenolic resin roller at

approximately 175 sf/gal per application. Work primer well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Refer to separate primer data sheet for additional information.

Sikalastic® FTP LoVOC Primer - For concrete with a maximum moisture content of 5 % by weight, and for metal flanges and penetrations, apply Sikalastic® FTP LoVOC Primer with a flat squeegee or roller at approximately 175 sf/gal. For concrete decks with a maximum moisture content of 6% by weight, apply two applications of Sikalastic® FTP LoVOC Primer with a flat squeegee or phenolic resin roller at approximately 175 - 220 sf/gal per application. Work primer well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Refer to separate primer data sheet for additional information.

Sikalastic® Recoat Primer – For existing polyurethane coatings, incidental exposed concrete deck areas, and as an interlaminar primer, apply Sikalastic® Recoat Primer with a flat squeegee or phenolic resin core roller at approximately 300 sf/gal. and work will into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Sikalastic® Recoat Primer is not suitable for metal substrates. Refer to separate primer data sheet for additional information.

sealed with Sikaflex® sealant. For additional questions please contact Sika Technical Services.

Detailing

Non-structural cracks up to 1/16" - Apply a detail coat of Sikalastic®-720/745 AL Traffic System at 23 wet mils, 4" wide, centered over the crack. Allow to become tack free before over coating.

Cracks and joints over 1/16" up to 1 inch - Rout and seal with Sikaflex® sealant and allow to cure. Apply a detail coat of Sikalastic®-720/745 AL Traffic System at 23 wet mils, 4" wide, centered over the crack. Allow to become tack free before over coating.

Joints over 1 inch - Should be treated as expansion joints and brought up through the Sikalastic®-720/745 AL Traffic System waterproofing membrane and sealed with Sikaflex® sealant.

Fabric Reinforcement – An optional 3" or 6" wide Sikalastic Flexitape Heavy fabric strip may be embedded within the base coat. Flexitape width shall be chosen such that a minimum of 1" tape is embedded on either side of the crack/joint. Apply additional coating as required to fully embed the Flexitape in the coating.

Panelized Joints - Panelized joints that are restrained across the joint and without differential movement may be sealed and the deck coating, including detail coat, applied over the joint.

NOTE: movement within panelized joints may cause deterioration of the aggregated wear coat, in which case the joints should be treated as expansion joints and brought up through the Sikalastic Traffic System and

Expansion Joints - Should be extended through System.

Base Coat

Premix mix Sikalastic® 720 Base Part A and Part B material (typically 30 seconds) using a low speed (400–600 rpm) drill with mechanical mixer (Jiffy) at slow speed to obtain uniform color making sure to scrape the solids from the bottom and sides of the pail. Pour Part B into Part A slowly and while mixing scrape the sides of the container. Mix the combined material thoroughly until a homogenous mixture and uniform color is obtained (typically 3 minutes). Use care not to allow the entrapment of air into the mixture. Apply at the recommended coverage rate (see System Guide) using a 3/16” notched squeegee or trowel and back roll using a phenolic resin core roller. Extend base coat over entire area including previously detailed cracks and joints. Allow coating to cure a minimum of 3–4 hours at 70°F and 50% RH or until tack free before top coating.

Top Coats

Premix Sikalastic® 745 AL Part A using a using a low speed (400–600 rpm) drill with mechanical mixer (Jiffy) at slow speed to obtain uniform color, making sure to scrape the solids from the bottom and sides of the pail. Add Part B and continue mixing until a homogenous mixture and color is obtained (typically 3 minutes). Use care not to allow the entrapment of air into the mixture. Apply at the recommended coverage rate (see System Guide) using a 3/16” notched squeegee or trowel, or phenolic resin core roller, and back roll. Apply aggregate evenly distributed at the appropriate rate immediately into the wet coating and back roll if required (see System Guide). Allow coating to cure a minimum of 3–4 hours at 70 °F and 50 % RH or until tack free between coats, and a minimum of 36 hours before opening to vehicular traffic.

Aggregate

Use clean, rounded, oven dried, quartz sand with a minimum gradation of 16–30 or 12–20 mesh for vehicular traffic and 20–40 mesh for pedestrian traffic, and a minimum hardness of 6.5 per the Moh’s scale. It should be supplied in pre-packaged bags and free of metallic or other impurities. Seeding of aggregate means and even, light broadcast short of to refusal. Any loose aggregate must be removed prior to re-coating. Back roll aggregate only where indicated.

Recoat Windows

In the event of an unforeseen rain event or delays beyond the stated recoat window referenced in each product’s current PDS, observe the following.

Product	Recoat Window	Required Surface Preparation After Recoat Window is Exceeded
Sikalastic® Primer	Tack-free to 72 hours	Abrade and re-prime
Sikalastic® FTP Lo-VOC	Tack-free to 24 hours	Abrade and re-prime
Sikalastic® FTP	Tack-free to 48 hours	Abrade and re-prime
Sikalastic® PF Lo-VOC	Tack-free to 16 hours	Abrade and re-prime
Sikalastic® MT	Tack-free to 48 hours	Abrade and re-prime
Sikalastic® Re-coat	Tack-free to 12 hours	Abrade and re-prime
Sikalastic® 720	Tack-free to 24 hours	Clean, solvent wipe+recoat primer
Sikalastic® 745 AL	Tack-free to 24 hours	Abrade, clean, solvent wipe+re-coat primer

Notes:

1. Abrasion of epoxy-based materials is intended to achieve an open, porous surface and to remove any amine blush that may interfere with bonding.
2. Abrasion of polyurethane-based materials is intended to achieve an open, porous surface.
3. Cleaning is intended to remove dirt, debris, contaminants, and residue from mechanical surface preparation methods.
4. Recommended solvents include high quality xylene and acetone. Handling and use of all solvents must be done in accordance with the manufacturer’s warnings and instructions for use.

Removal

Remove liquid resin immediately with dry cloth. Once cured, resin can only be removed by mechanical means.

MAINTENANCE

Clean with non-sudsing detergent and water and inspect regularly for mechanical damage. Snow removal equipment must have shoes, rubber tips or small skis to prevent ruptures. The use of metal blades without protection is not recommended. Damaged areas should be repaired promptly. Remove delaminated coating back to well adhered material and reinstall patch according to procedures described above. Do not use asphalt or tar



modified products. Consult a Sika representative for recommendations on top coat or wearing surface restoration.

LIMITATIONS

- To avoid dew point conditions during application, relative humidity must be no more than 95 % and substrate temperature must be at least 5 °F (3 °C) above measured dew point temperatures.
- Maximum moisture content of substrate: 4 % by weight with Sikalastic® Primer, Sikalastic® FTP Primer, Sikalastic® PF LoVOC Primer and 6 % by weight with Sikalastic® FTP LoVOC Primer, Sikalastic® MT Primer.
- Minimum ambient and substrate temperature during application and curing of material is 40 °F (4 °C); maximum is 90 °F (32 °C). Frequent monitoring of ambient and substrate temperature should always be done when applying polyurethane coatings. Note that low temperatures and low humidity will slow down the cure, and high temperatures and high humidity will accelerate it.
- Do not store materials outdoors exposed to sunlight for prolonged periods.
- Do not thin with solvents.
- Minimum age of concrete must be 21–28 days, depending on curing and drying conditions.
- Any repairs required to achieve a level surface must be performed prior to application (consult a Sika representative for guidance on various Sika product solutions). Surface irregularities may reflect through the cured system.
- Do not apply to a porous or damp surface where moisture vapor transmission will occur during application and cure.
- Substrate must be dry prior to application. Do not apply to a frosted, wet or damp surface. Do not proceed if rain is imminent within 8–12 hours of application. Allow sufficient time for the substrate to dry after rain or inclement weather as there is the potential for bonding problems.
- When applying over existing coatings compatibility and adhesion testing is recommended.
- On grade, lightweight concrete, asphalt pavement, and applications where chained or studded tires may be used should not be coated with Sikalastic® traffic systems.
- Unvented metal pan decks or decks containing between-slab membranes require further technical evaluation and priming with a moisture-blocking primer - contact Sika regarding recommendations.
- Waterproofing applications under overburden, including concrete pavement, asphalt pavement, and tile in a cementitious setting bed, require further technical evaluation - contact Sika regarding recommendations.
- Do not subject to continuous immersion.
- Sikalastic® 720 is not UV stable and must be top coated or protected by a separate wearing course.

- Primer and base coat must be kept clean and recoated - primer within 48 hours, base coat within 24 hours. If this window is exceeded, contact Sika for recommendations.
- Mockups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommended.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

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.

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.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL**

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