

SYSTEM DATA SHEET

Sikalastic®-710/715/735 AL System

Single component, elastomeric, crack-bridging, waterproofing traffic system

PRODUCT DESCRIPTION

Sikalastic®-710/715/735 AL System is a single component, aromatic, moisture cured, elastomeric polyurethane coating system designed for use as a waterproofing membrane for pedestrian and vehicular traffic bearing surfaces. Optional aliphatic top coat provides enhanced UV resistance and color stability. System components are: Sikalastic® Primer (see separate data sheet), Sikalastic® FTP LoVOC Primer (moisture-tolerant primer-see separate data sheet), Sikalastic® FTP Primer (see separate data sheet), Sikalastic® MT Primer (moisture-tolerant primer - see separate data sheet), Sikalastic® PF LoVOC Primer (pore filler-see separate data sheet), Sikalastic® 710 Base one-component aromatic polyurethane base coat, Sikalastic® 715 Top one-component aromatic polyurethane top coat (suitable for UV exposure), Sikalastic® 735 AL Top, one-component aliphatic polyurethane UV-resistant top coat, Sikalastic® 700 ACL optional accelerator

USES

Sikalastic®-710/715/735 AL System may only be used by experienced professionals.

Sikalastic®-710/715/735 AL System is suitable for use on structurally sound concrete, cementitious or plywood surfaces exposed to vehicular or pedestrian traffic.


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

CHARACTERISTICS / ADVANTAGES

- Excellent crack-bridging properties and flexibility, even at low temperatures
- Resistant to abrasion and wear
- Impervious to water and deicing salts
- UV resistant
- Range of standard colors and custom colors available

APPROVALS / STANDARDS

- Sikalastic 710/715/735 System meets the requirements of ASTM C957
- Sikalastic 710/715/735 Class A fire rating (ASTM E108)

 **SEALANT - WATERPROOFING & RESTORATION INSTITUTE**

Issued to: Sika Corporation
Product: Sikalastic 710/715/735 AL Traffic System Seal

ASTM D 412: Tensile Strength of Topcoat	Pass ✓
Sikalastic 715 Topcoat: Tensile Strength: 3,068 psi; Elongation: 227%	
ASTM D 412: Tensile Strength of Topcoat	Pass ✓
Sikalastic 735 Topcoat: Tensile Strength: 3,900 psi; Elongation: 260%	
ASTM D 4541: Adhesion of Base Coat	Pass ✓
Sikalastic 710 Base: Pull-off Adhesion: 451 psi	
ASTM D 4060: Abrasion Resistance of Topcoat	Pass ✓
Sikalastic 715 Topcoat: Abrasion Resistance: 6 mgms loss - mgms loss/1,000 cycles	
ASTM D 4060: Abrasion Resistance of Topcoat	Pass ✓
Sikalastic 735 Topcoat: Abrasion Resistance: 16 mgms loss - mgms loss/1,000 cycles	

Validation Date: 10/12/15-10/11/20

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DECK COATING VALIDATION
www.swrionline.org

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.*
SL 710 Detail Coat	32 mils wet	32 mils wet	32 mils wet	32 mils wet	32 mils wet
SL 710 Base Coat	32 mils wet (23 mils dry) 50 sf/gal.	32 mils wet (23 mils dry) 50 sf/gal.	32 mils wet (23 mils dry) 50 sf/gal.	32 mils wet (23 mils dry) 50 sf/gal.	32 mils wet (23 mils dry) 50 sf/gal.
SL 715/735 AL Wear Coat	14 mils wet (10 mils dry) 115 sf/gal	14 mils wet (10 mils dry) 115 sf/gal	14 mils wet (10 mils dry) 115 sf/gal	20 mils wet (16 mils dry) 72 sf/gal	20 mils wet (16 mils dry) 72 sf/gal
Aggregate	10-20 lbs/100 sf seeded/backrolled	10-20 lbs/100 sf seeded/backrolled	10-20 lbs/100 sf seeded/backrolled	40- 60 lbs/100 sf seeded to refusal	10-20 lbs/100 sf seeded/backrolled
SL 715/735 AL Top Coat I	-	14 mils wet (10 mils dry) 110 sf/gal	14 mils wet (10 mils dry) 110 sf/gal	20 mils wet (16 mils dry) 65 sf/gal	20 mils wet (16 mils dry) 65 sf/gal
Aggregate	-	-	-	-	10-20 lbs/100 sf seeded/backrolled
Total Thickness	33 mils dry (excluding aggregate)	43 mils dry (excluding aggregate)	43 mils dry (excluding aggregate)	55 mils dry (excluding aggregate)	55 mils dry (excluding aggregate)

NOTE: *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.

Color	Sikalastic® 710 Base: Gray Sikalastic® 715 Top: Gray, Charcoal and Tan; Custom colors available Sikalastic® 735 Top: Gray, Charcoal and Tan; Custom colors available			
Volatile organic compound (VOC) content	710 Base Coat 240 g/l	715 Top Coat 243 g/l	735 AL Top Coat 225 g/l	(ASTM D-2369-81) 75 °F (24 °C) 50 % RH

TECHNICAL INFORMATION

Shore A Hardness	710 Base Coat 55 ± 5	715 Top Coat 85 ± 5	735 AL Top Coat 90 ± 5	(ASTM D-2240) 75 °F (24 °C) 50 % RH
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Abrasion Resistance	710 Base Coat	715 Top Coat	735 AL Top Coat	(ASTM D-4060) Test 1000 cycles, 1000g and CS-17 wheel
	n/a	6 mg	16 mg	
Tensile Strength	710 Base Coat	715 Top Coat	735 AL Top Coat	(ASTM D-412) 75 °F (24 °C) 50 % RH
	800 ± 100 psi	3200 ± 300 psi	4200 ± 300 psi	
Tear Strength	710 Base Coat	715 Top Coat	735 AL Top Coat	(Die C, ASTM D-624) 75 °F (24 °C) 50 % RH
	170 ± 25 pli	350 ± 50 pli	400 ± 50 pli	
Elongation at Break	710 Base Coat	715 Top Coat	735 AL Top Coat	(ASTM D-412) 75 °F (24 °C) 50 % RH
	500 ± 50 %	375 ± 50 %	300 ± 50 %	

APPLICATION INFORMATION

Coverage	Coverage rates provided in the system guide are intended to achieve required wet film thickness under optimal conditions. Additional material may be required depending on substrate surface roughness and porosity, material and substrate temperatures, and other site-dependent factors. This will result in a lower coverage rate.
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PRODUCT INFORMATION

Packaging	Sikalastic® 710 Base and 715 Top: 5 gal. pails, 50 gal. (net) drums Sikalastic® 735 AL Top: 5 gal. pails (4.65 gal. pails - tint base) Sikalastic® 700 ACL: 1 quart cans (6 cans per carton)			
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	710 Base Coat	715 Top Coat	735 AL Top Coat	(ASTM D-2697) 75 °F (24 °C) 50 % RH
	71 %	72 %	74 %	
Viscosity	710 Base Coat	715 Top Coat	735 AL Top Coat	75 °F (24 °C) 50 % RH
	6500 ± 3000 cps	1500 ± 500 cps	2500 ± 700 cps	

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 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. Seams should be sealed with Sikaflex® 2c or 1a and detailed and may need embedded fabric reinforcement.

Metal - Should be thoroughly cleaned by grinding or blast cleaning to near white metal (SSPC SPS-10).

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 well 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.

Base Coat

Thoroughly mix Sikalastic® 710 Base using a low speed (400–600 rpm) drill with mechanical mixer (Jiffy) at slow speed until a homogenous mixture and color is obtained. Use care not to allow the entrapment of air into the mixture. Apply at the recommended coverage rate (see System Guide) using a 1/4" notched squeegee or trowel and backroll using a phenolic resin core roller. Extend base coat over entire area including previously detailed cracks

and control joints. Allow coating to cure a minimum of 16 hours at 70 degrees F and 50 % RH or until tack free before top coating.

Top Coats

Thoroughly mix Sikalastic® 715 Top and Sikalastic® 735 AL using a low speed (400–600 rpm) drill with mechanical mixer (Jiffy) at slow speed until a homogenous mixture and color is obtained. 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 backroll. Apply aggregate evenly distributed at the appropriate rate immediately into wet coating and backroll if required (see System Guide). Allow coating to cure a minimum of 16 hours at 70 degrees F and 50 % RH or until tack free between coats, and a minimum of 72 hours before opening to vehicular traffic.

Aggregate

Use clean, rounded or semi-angular oven dried quartz sand with a size gradation of 16–30 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 an even, light broadcast short of refusal. A full broadcast of aggregate means a heavy application to refusal. Any loose aggregate must be removed prior to recoating. Backroll aggregate where indicated.

Accelerator

Sikalastic® 700 ACL may be added to Sikalastic® 710 Base or 715 Top in order to speed cure time particularly in cold weather conditions. The use of Sikalastic® 700 ACL is required for all Sikalastic® 715 and 735 AL applications exceeding 19 wet mils. Mix thoroughly prior to application. Add a maximum of 1 quart to 5 gallons (or 1:20 ratio) and only to material that will be applied the same day.

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	Surface Prep After Recoat Window is Exceeded
Sikalastic® Primer	Tack-free to 72 hours	Heavily abrade and reprime
Sikalastic® FTP Lo-VOC	Tack-free to 24 hours	Heavily abrade and reprime
Sikalastic® FTP	Tack-free to 48 hours	Heavily abrade and reprime
Sikalastic® PF Lo-VOC	Tack-free to 16 hours	Heavily abrade and reprime
Sikalastic® MT	Tack-free to 48 hours	Heavily abrade and reprime
Sikalastic® Recoat	Tack-free to 12 hours	Heavily abrade and reprime
Sikalastic® Recoat with 700 ACL Accelerator	Tack-free to 6 hours	Heavily abrade and reprime
Sikalastic® 710	Tack-free to 48 hours	Clean and solvent wipe+ recoat primer
Sikalastic® 710 with 700 ACL Accelerator	Tack-free to 24 hours	Clean and solvent wipe+ recoat primer
Sikalastic® 715	Tack-free to 48 hours	Clean and solvent wipe+ recoat primer
Sikalastic® 715 with 700 ACL Accelerator	Tack-free to 24 hours	Clean and solvent wipe+ recoat primer
Sikalastic® 735 AL	Tack-free to 48 hours	Clean and solvent wipe+recoat primer
Sikalastic® 735 AL with 700 ACL Accelerator	Tack-free to 24 hours	Clean and solvent wipe+recoat primer

Notes:

1. Heavy 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 temperature.
- Maximum moisture content of concrete substrate by weight when measured with a Tramex CME or CMExpert type concrete moisture meter: 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. (see separate Primer product data sheets).
- Minimum ambient and substrate temperature during application and curing of material is 40 °F (4 °C); maximum is 95 °F (35 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.
- Coating materials will become more viscous at lower application temperatures and be more difficult to spread, which may affect yield.
- Do not store materials outdoors directly exposed to sunlight and moisture. Cover and protect materials with breathable type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Observe temperature storage and conditioning requirements.
- Do not thin with solvents.
- Use properly graded, oven dried aggregates only.
- 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 product solutions). Surface irregularities may reflect through the cured system.
- Precautions should be taken to prevent vapors and/or odors from entering the building/structure, including
 - but not limited to turning off and sealing air intake vents and through-wall air conditioners, and other means of vapor/odor ingress during application and cure.
- 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.
- Opening prior to final cure may result in loss of aggregate, or permanent staining and subsequent premature failure.
- Vehicle fluids and some high performance tires can stain the coating. Fluid spills should be removed promptly as the coating can in some cases be damaged from prolonged exposure.
- On grade, lightweight concrete, asphalt pavement, or insulated split slab applications, or applications where chained or studded tires may be used, must not be coated with Sikalastic Traffic Systems without Sika technical review. Contact Sika Technical Services or Product Engineering.
- Unvented metal pan decks or decks containing a between-slab membrane require further technical evaluation and priming with a moisture-tolerant primer - contact Sika regarding recommendations.
- Do not subject to continuous immersion. Ponding water up to 72 hours duration is not considered to be continuous immersion.
- Sikalastic® 710 Base coat is not UV stable and must be top coated.
- Sikalastic® 715 Top coat is UV resistant, but will chalk, fade or discolor over time when exposed to UV and under certain artificial lighting conditions. Sikalastic 735 AL aliphatic top coat provides superior color and gloss retention.
- Base and intermediate coats must be kept clean and re-coated within 48 hours, or within 24 hours if Accelerator is used. If this recoat 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.
- Cracks or ruptures which develop in the structure after the waterproofing traffic system was installed will not be bridged by the waterproofing traffic system and

need to be repaired according to the recommended standard crack treatment details per this PDS.

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.

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System Data Sheet
Sikalastic®-710/715/735 AL System
September 2020, Version 01.04
02081290000000071

Sikalastic-710715735ALSystem-en-US-(09-2020)-1-4.pdf

