

**Product Data Sheet**  
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Sikalastic 720/745 Traffic System



**SEALANT-WATERPROOFING & RESTORATION INSTITUTE**

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

**ASTM D 412:** Tensile Strength of Top Coat  
Sikalastic 745 AL  
Tensile Strength: 3,460 psi; Pass ✓  
Elongation: 625%

**ASTM D 4541:** Adhesion of Base Coat  
Sikalastic 720 Base  
Pull-off Adhesion: 550 psi Pass ✓

**ASTM D 4060:** Abrasion Resistance of Top Coat  
Sikalastic 745 AL  
Abrasion Resistance: 7 1/2 mgms loss - mgms loss/1,000 cycles Pass ✓

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# Sikalastic® 720/745 Traffic System

Two component, fast curing, solvent-free, elastomeric, crack-bridging, waterproofing traffic system

|                     |   |  |
|---------------------|---|--|
| <b>Description</b>  | Sikalastic 720/745 Traffic System is a two-component, chemically cured, elastomeric polyurethane coating system designed for use as a waterproofing membrane for pedestrian and vehicular traffic bearing surfaces. System components are:<br>Sikafloor FTP primer (separate data sheet available or consult Sika for other primer options)<br>Sikalastic 720 Base two-component, high solids, fast curing polyurethane base coat<br>Sikalastic 745 AL two-component, high solids, fast curing aliphatic polyurethane top coat<br>Sikalastic 735 AL, 736 AL Lo-VOC and 748 PA optional aliphatic top coats (see separate Sikalastic Aliphatic Top Coats data sheet) |  |
| <b>Where to Use</b> | Sikalastic 720/745 Traffic System is suitable for use on structurally sound concrete, cementitious or plywood surfaces exposed to vehicular or pedestrian traffic. <ul style="list-style-type: none"> <li>■ Multi-story parking garages</li> <li>■ Parking decks and ramps</li> <li>■ Foot bridges and walkways</li> <li>■ Mechanical rooms</li> <li>■ Stadiums and arenas</li> <li>■ Plaza and rooftop decks</li> <li>■ Balconies</li> </ul>   |  |
| <b>Advantages</b>   | <ul style="list-style-type: none"> <li>■ Low odor and fast turnaround</li> <li>■ Excellent crack-bridging properties and flexibility, even at low temperatures</li> <li>■ Outstanding resistance to abrasion and wear</li> <li>■ Impervious to water and deicing salts</li> <li>■ Range of standard colors and decorative options</li> </ul>  |  |
| <b>Packaging</b>    | Sikalastic 720 Base   | 20 gal. kit - four 5 gal. pails (net 4 gal. each) Part A and four 1 gal. cans Part B   |
|                     | Sikalastic 745 AL   | 17.6 gal. kit - four 5 gal. pails (net 4 gal. each) Part A and four 1 gal. cans (net 0.4 gal. each) Part B   |
|                     | Sikafloor FTP   | 7 gal. kit - two 1 gal. cans Part "R" and two short-filled pails Part "H" (1.25 gal. each). Kit yields 7 gal. after dilution with 2.5 gal. water (see mixing instructions below) |
| <b>Colors</b>       | Sikalastic 720 Base   | Gray   |
|                     | Sikalastic 745 AL   | Gray, Charcoal and Tan; custom colors available  |

**Typical Data (Material and curing conditions @ 75°F (24°C) and 50% RH)**

|  |  |                |
|--|--|----------------|
| <b>Shelf Life</b>                          | 1 year in original, unopened containers.   |                |
| <b>Storage</b>                             | Store dry at 40-95°F (4-35°C). Condition material to 65-85°F (18-30°C) before using. |                |
|  | <b>720 Base</b>  | <b>745 AL</b>  |
| <b>Pot Life</b>                            | 10-15 minutes  | 20-30 minutes  |
| <b>Total Volume Solids (ASTM D-2697)</b>   | 95%  | 100%           |
| <b>VOCs (ASTM D-2369-81)</b>               | 59 g/l   | <15 g/l        |
| <b>Tensile Strength (ASTM D-412)</b>       | 2500 ± 100 psi   | 3200 ± 300 psi |
| <b>Elongation at Break (ASTM D-412)</b>    | 800 ± 100%   | 450 ± 45%      |
| <b>Tear Resistance (Die C, ASTM D-624)</b> | 300 ± 25 pli   | 300 ± 30 pli   |
| <b>Hardness (ASTM D-2240)</b>              | 80 ± 5 Shore A   | 85 ± 5 Shore A |
| <b>Requirements of ASTM C-957</b>          | System passes  | System passes  |



## How to Use

### Surface 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.

**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).

**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 imbedded fabric reinforcement.

**Metal** - Should be thoroughly cleaned by grinding or blast cleaning. Consult Sika regarding primer.

### Priming

**Concrete and Plywood:** Apply Sikafloor FTP with a flat squeegee or roller at approximately 300 sf/gal. and work well into the substrate to ensure adequate penetration and sealing and puddles are avoided. Refer to separate data sheet for more detailed information, or consult Sika for other primer options.

**Mixing:** Premix both components. Sikafloor FTP, Part "H" is dark olive green in color and may appear black in the container. Sikafloor FTP, Part "R" is light amber in color. Add the 1 gallon of Sikafloor FTP, Part "R" to the 1.25 gallons of Part "H" in the short filled Part "H" pail. Mix thoroughly with a mechanical mixer (Jiffy) for 3 minutes. This mixture will appear as a light olive green color. Slowly add 1.25 gallons of potable water to the mixture under agitation. Mix for an additional 2 minutes until the mixture is fully dispersed. Fully dispersed material will appear as light green in color. Prevent from freezing and allow primer to cure a minimum of 3-4 hours at 75°F and 50% RH or until tack free before applying base coat. Recoat window is generally 48 hours; contact Sika if exceeded.

### Detailing

**Non-structural cracks up to 1/16"** - Apply a detail coat of Sikalastic 720 Base at 24 wet mils, 4" wide, centered over the crack. Allow to become tack free before overcoating.

**Cracks and joints over 1/16" up to 1 inch** - Rout and seal with Sikaflex 2c or 1a sealant and allow to cure. Apply a detail coat of Sikalastic 720 Base at 24 wet mils, 4" wide, centered over crack. Allow to become tack free before overcoating.

**Joints over 1 inch** - Should be treated as expansion joints and brought up through the Sikalastic Traffic System and sealed with Sikaflex 2c or 1a sealant.

### Base Coat

Premix mix Sikalastic 720 Base Part A and Part B material using a 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 notched squeegee or trowel and backroll 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 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) and backroll using a phenolic resin core roller. Apply aggregate evenly distributed at the appropriate rate immediately into the wet coating and backroll 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 size gradation of 16-30 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 an even, light broadcast short of to refusal. Any loose aggregate must be removed prior to recoating. Backroll aggregate where indicated.

| System Guide    | Pedestrian Traffic   | Heavy Pedestrian / Light Vehicular     | Heavy Vehicular Traffic                     |
|-----------------|--|--|---|
| Primer          | Sikafloor FTP - 300 sf/gal. Consult Sika for other primer options. |  |   |
| 720 Detail Coat | 24 mils wet over properly treated cracks and joints                |  |   |
| 720 Base Coat   | 24 mils wet (23 mils dry) - 66 sf/gal.                             |  |   |
| 745 Top Coat I  | 12 mils wet (12 mils dry) - 133 sf/gal.                            |  | 14 mils wet (14 mils dry) - 115 sf/gal.     |
| Aggregate       | 5-10 lbs/100 sf - seeded/backrolled                                |  | 10-15 lbs/100 sf seeded (backroll optional) |
| 745 Top Coat II |  | 18 mils wet (18 mils dry) - 90 sf/gal. | 18 mils wet (18 mils dry) - 90 sf/gal.      |
| Aggregate       |  | 10-20 lbs/100 sf - seeded/backrolled   | 10-20 lbs/100 sf - seeded/backrolled        |
| Total Thickness | 35 mils dry (excluding aggregate)                                  | 41 mils dry (excluding aggregate)      | 55 mils dry (excluding aggregate)           |

See separate Sikalastic Aliphatic Top Coats data sheet for top coat substitutions and decorative quartz and DecoFlake® systems.

**Limitations**

- To avoid dew point condensation, relative humidity must be no more than 95% and substrate temperature must be at least 5°F above measured dew point temperatures.
- Maximum moisture content of substrate: 4% by weight.
- 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.
- 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.
- 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, unvented metal pan, split/sandwich slab and buried membrane conditions as well as light-weight concrete and asphalt or where chained or studded tires may be used should not be coated with Sikalastic Traffic Systems.
- Do not subject to continuous immersion.
- Base coat is not UV stable and must be top coated.
- Primer, base and top coats must be kept clean and recoated within 48 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.

**Caution**

**Sikalastic 720 Base**

**Part A: WARNING: IRRITANT.** Contains Polyurethane Prepolymer (Mixture) and 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS: 4098-71-9). Causes eye irritation. May cause skin and respiratory sensitization. Harmful if swallowed. Harmful if inhaled.

**Part B: WARNING: IRRITANT, SENSITIZER.** Avoid direct contact. Contains Amine (Trade Secret) and DINP (CAS: 68515-48-0). Causes burns to eyes and digestive tract. Causes skin and respiratory irritation. May cause skin sensitization. Harmful if swallowed. **Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.**  
**WARNING: This product contains a chemical known to the State of California to cause cancer.**

**Sikalastic 745 AL**

**Part A: WARNING: IRRITANT, SENSITIZER.** Contains Polyurethane Prepolymer (Mixture), 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl Isocyanate (CAS: 4098-71-9). Causes eye irritation. May cause skin and respiratory sensitization. May be harmful if inhaled. Harmful if swallowed.

**Part B: WARNING: CORROSIVE, IRRITANT, SENSITIZER.** Avoid direct contact. Contains Diethylmethylbenzenediamine (CAS: 68479-98-1), Aldimine (Trade Secret). Corrosive to eyes/skin/digestive tract. Causes burns to eyes/skin/digestive tract. Causes respiratory irritation. May cause skin sensitization. Harmful if swallowed. **Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.**

**Handling & 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.

**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.



# Construction

## Clean Up

Wear chemical resistant gloves. **A.R. CHAMBERS SUPPLY** 412-681-8955. In the absence of proper ventilation use properly fitted NIOSH respirator. Confine spill, collect using absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.

## Maintenance/Repair

Clean with non-sudzing 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.

### KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY

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