MIAMI-DADE COUNTY APPROVED

Construction

Sikalastic® 745 AL

Two-component, aliphatic, fast-curing, solvent-free, traffic bearing wear and top coat

Description	Sikalastic® 745 AL is a two-component, aliphatic, chemically cured, elastomeric polyurethane coating intended for use as the traffic bearing wear and top coat over polyurethane waterproofing membrane for pedestrian and vehicular traffic bearing applications, and as a protective top coat over polyurethane waterproofing membrane under a separate wearing course such as concrete or asphalt pavement, and tile in a setting bed.
Where To Use	■ Multi-story parking garages. ■ Parking decks and ramps. ■ Foot bridges and walkways. ■ Mechanical rooms. ■ Stadiums and arena. ■ Plaza and rooftop decks. ■ Balconies.
Advantages	■ Low odor and fast turnaround. ■ Excellent crack-bridging properties and flexibility, even at low temperatures. ■ Resistant to water and de-icing salts. ■ Alkaline resistant. ■ Range of standard colors.
Coverage	133 ft²/gal. @ 12 wet mils (12 dry mils); 115 ft²/gal. @ 14 wet mils (14 dry mils); 90 ft²/gal. @ 18 wet mils (18 dry mils).
Packaging	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.
Cure Mechanism	Chemical cure.
Chemical Resistance	Resistant to de-icing salts, and alkaline concrete and cementitious mortars/tile adhesives.

Typical Data *(Material and curing conditions at 75°F (24°C) and 50% R.H.)*

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

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.
Color	Gray, Charcoal and Tan; custom colors available.
Pot Life	20-30 minutes
Total Volume Solids (ASTM D-2697)	100%
VOCs (ASTM D-2369-81)	73.6 g/l
Tensile Strength (ASTM D-412)	3200 +/- 300 psi
Elongation at Break (ASTM D-412)	450 +/- 45%
Tear Resistance (Die C, ASTM D-624)	300 +/- 30 pli
Hardness (ASTM D-2240)	85 +/- 5 Shore A
UV Resistance and Recovery from Elongation (ASTM C-957)	PASS

PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT HTTP://USA.SIKA.COM/ OR BY CALLING SIKA'S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA 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 DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

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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.

Sikalastic® 720 Waterproofing Base Coat - Coating should be cured and tack free.

Existing Coatings - Should be cleaned and mechanically abraded to provide a contaminant free, open textured surface. Solvent wipe as allowed by state and local regulations.

Mixing

Premix Part A and Part B components 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 side 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.

Application

Apply at the recommended coverage rate (see appropriate System Guide) using a notched squeegee or trowel, and backroll using a phenolic resin core roller. Apply aggregate evenly distributed at the appropriate rate immediately into wet coating and backroll if required (see appropriate System Guide). Allow coating to cure a minimum of 3-4 hours at 70°F and 50% RH or until tack fee between coats. Allow coating to cure for a minimum of 36 hours before opening to vehicular traffic or installing separate wear course.

Aggregate: Use clean, rounded or semi-angular oven dried quartz sand with a size gradation of 16-30 mesh 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 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.

Removal

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

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® FTP primer, and 6% by weight with Sikalastic® 1610 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.
- 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 Sika product solutions). Surface irregularities may reflect though 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 to traffic or installation of separate wearing course 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, 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.
- Base coat must be kept clean and recoated within 24 hours for two-component base coat, and 72 hours for single component base coat. 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.

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