



PRODUCT DATA SHEET

Sikalastic®-745 AL

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

PRODUCT 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.

WHERE TO USE

Sikalastic®-745 AL may only be used by experienced professionals.

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

CHARACTERISTICS / 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
- UV stable

PRODUCT INFORMATION

Packaging	66.6 L (17.6 US gal.) kit containing: <ul style="list-style-type: none"> ▪ Part A: four 18.9 L (5 US gal.) pails (net 15.1 L (4 US gal.) each) ▪ Part B: four 3.78 L (1 US gal.) cans (net 1.5 L (0.4 US gal.) each)
Shelf Life	12 months in original, unopened containers
Storage Conditions	Store dry at 4–35 °C (40–95 °F) Condition material to 18–30 °C (65–85 °F) before using.
Appearance / Colour	RAL 7012 (Basalt Grey), RAL 7015 (Slate Grey), RAL 7046 (Telegrey 2); custom colors available (min. 605L (160 US gal.))
Solid content by volume	94 % (ASTM D-2697)
Volatile organic compound (VOC) content	73.6 g/L (ASTM D-2369-81)

TECHNICAL INFORMATION

Shore A Hardness	85 +/- 5	(ASTM D-2240) 24 °C (75 °F) 50 % R.H.
Tensile Strength	22 MPa +/- 2 MPa (3200 +/- 300 psi)	(ASTM D-412) 24 °C (75 °F) 50 % R.H.
Elongation at Break	450 +/- 45 %	(ASTM D-412) 24 °C (75 °F) 50 % R.H.
Tear Strength	300 +/- 30 pli	(Die C, ASTM D-624) 24 °C (75 °F) 50 % R.H.
Chemical Resistance	Resistant to de-icing salts.	

APPLICATION INFORMATION

Consumption	2.0 - 2.5 m ² /L (80 - 100 ft ² /US gal.) at 16 - 20 mil w.f.t. per coat. Note: Actual coverage rates and material consumption will depend upon porosity and profile of the substrate. Test areas are recommended to establish correct coverage rates.	
Pot Life	20–30 minutes	
Waiting Time / Overcoating	Minimum 2 -4 hours, dependant on temperature and relative humidity. Contact Sika Canada if recoating after 24 hours.	
Applied Product Ready for Use	Allow 36 hour minimum before open to vehicular traffic. Time can vary, dependant on temperatue and relative humidity.	

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.

LIMITATIONS

- To avoid dew point conditions during application, relative humidity must be no more than 95 % and substrate temperature must be at least 3 °C (5 °F) above measured dew point temperatures.
- Minimum ambient and substrate temperature during application and curing of material is 4 °C (40 °F); maximum is 32 °C (90 °F). 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.
- Direct-fired gas or kerosene heaters increase the carbon dioxide content in the air and also produce significant amounts of water vapour. Properly exhaust heaters to the exterior of the building to prevent damage to the work (such as but not limited to amine blush, whitening, debonding, etc.).
- 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, 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 between-slab membranes require further technical evaluation and priming with a moisture-blocking primer - contact Sika regarding recommendations.
- Do not subject to continuous immersion. Ponding water up to 72 hours is not considered as continuous immersion.
- Mockups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommended.
- Expect slight sheen and colour variations when placed adjacent to other Sika® Epoxy or Polyurethane topcoat finishes
- 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 Sika Canada's recommended standard crack treatment details.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

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®-390 Membrane - 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 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

Prior to application, measure and confirm substrate moisture content, ambient relative humidity, ambient and surface temperature and dew point. During installation, confirm and record above values at least once every three (3) hours, or more frequently whenever conditions change (e.g. ambient temperature rise/fall, relative humidity increase/decrease, etc.).

Sikalastic®-745 AL wear course may be applied in different build configurations to reflect the traffic patterns in specific zones of the parking garage.

Light Duty/Parking Stalls Option (partial broadcast):

Apply Sikalastic®-745 AL onto cured Sikalastic®-390 Membrane (within recoat window) at a rate of 2.0 - 2.2 m²/L (18 - 20 mil w.f.t.) using a notched squeegee. Allow the material to self-level for 5 to 10 minutes then broadcast clean, round or semi-angular, oven-dried, #24 mesh quartz sand at 0.6 - 1.0 kg/m² (12 - 20 lb/100 ft²). Backroll to encapsulate aggregate and to ensure uniform finish. Allow sufficient cure time for the park deck coating before opening up to traffic.

Medium Duty/Drive Aisles Option (partial broadcast):

Apply Sikalastic®-745 AL intermediate coat onto cured Sikalastic®-390 Membrane (within recoat window) at a rate of 2.0 - 2.2 m²/L (18 - 20 mil w.f.t.) using a notched squeegee. Allow the material to self-level for 5 to 10 minutes then broadcast clean, round or semi-angular, oven-dried, #24 mesh quartz sand at 0.75 - 1.0 kg/m² (15 - 20 lb/100 ft²). Backroll to encapsulate aggregate and to ensure uniform finish and allow to cure.

Apply Sikalastic®-745 AL onto cured intermediate coat (within recoat window) at a rate of 2.0 - 2.6 m²/L (15 - 20 mil w.f.t.) using a notched squeegee. Allow the material to self-level for 5 to 10 minutes then broadcast clean, round or semi-angular, oven-dried, #24 mesh quartz sand at 0.7 - 1.0 kg/m² (14 - 20 lb/100 ft²). Backroll to encapsulate aggregate and to ensure uniform finish and allow sufficient cure time for the park deck coating before opening it up to traffic.

Heavy Duty/Turn Lanes, Ramps, Entries, Exits and Ticket Booths Option (broadcast to full saturation):

Apply Sikalastic®-745 AL intermediate coat onto cured Sikalastic®-390 Membrane (within recoat window) at a rate of 2.0 m²/L (20 mil w.f.t.) using a notched squeegee. Allow the material to self-level for 5 to 10 minutes then broadcast clean, round or semi-angular, oven-dried, #24 mesh quartz sand at 1.75 - 2.5 kg/m² (35 - 50 lb/100 ft²). Once fully saturated, the coating will not accept any additional sand and the surface will be covered. Allow to the coating to cure before removing excess sand. Remove excess sand from the cured intermediate layer and apply Sikalastic®-745 AL at a rate of 2.0 - 2.5 m²/L

(leaving approximately 16 - 20 mil w.f.t.) using a flat squeegee and backroll to level. Broadcast clean, round or semi-angular, oven-dried, #24 mesh quartz sand at rate of 0.15 - 0.3 kg/m² (3 - 6 lb/100 ft²) and lightly backroll to encapsulate aggregate and to ensure uniform finish. Allow sufficient cure time for the park deck coating before opening up to traffic.

NOTE: All coverage rates are approximate and may vary depending on substrate texture, particle shape and size and the quantity of the aggregate being used.

Intermediate layers broadcast to full saturation will increase the following coating consumption significantly. User is advised that a 3 x 3 m (10 x 10 ft) mock up using actual materials to be used during project installation should be done to validate coverages, textures, slip resistance and suitability for expected traffic volumes.

CLEAN UP

Clean all tools and equipment immediately with Sika® Urethane Cleaner and Thinner. Once cured, product can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local

Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

Sika Canada Inc.

Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations

Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)

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