Sikalastic® 735 AL, 736 AL Lo-VOC and 748 PA Aliphatic Top Coats

High performance top coats for Sikalastic 710/715 and 720/745 Traffic Systems

Description
Sikalastic Aliphatic Top Coats are optional top coats for the Sikalastic 710/715 and 720/745 Traffic Systems. They provide superior UV resistance, color stability and cleanability as well as more decorative options. The series includes:
- Sikalastic 735 AL one-component, moisture cured, aliphatic polyurethane top coat
- Sikalastic 736 AL Lo-VOC one-component, moisture cured, low-VOC, aliphatic polyurethane top coat
- Sikalastic 748 PA two-component, chemically cured, low-VOC, aliphatic polyaspartic top coat
- Sikalastic 700 ACL optional accelerator

Where to Use
Sikalastic Aliphatic Top Coats are part of Sikalastic Traffic Systems, which are suitable for use on structurally sound concrete, cementitious or plywood surfaces exposed to vehicular or pedestrian traffic.
- Multistory parking garages
- Parking decks and ramps
- Foot bridges and walkways
- Mechanical rooms
- Stadiums and arenas
- Plaza and rooftop decks
- Balconies

Advantages
- Superior color and gloss retention and cleanability
- Outstanding resistance to abrasion and wear
- Impervious to water and deicing salts
- Range of standard colors as well as custom and decorative options

Packaging
- Sikalastic 735 AL and 736 AL Lo-VOC: 5 gal. pails
- Sikalastic 748 PA two-component: 4 gal. unit (2, 1 gal. cans Part A and 2, 1 gal. cans Part B)
- Sikalastic 700 ACL: 1 quart cans (9 cans per carton)

Colors
- Sikalastic 735 AL and 736 AL Lo-VOC: Gray, Charcoal and Tan; custom colors available
- Sikalastic 748 PA: Clear; custom colors available

How to Use
Surface Preparation
Sikalastic Aliphatic Top Coats are designed as alternate top coats for the Sikalastic 710/715 and 720/745 Traffic Systems (see separate data sheets for substrate preparation guidelines). When applying over existing coatings surface must be clean, dry and sound. 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.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>735 AL</th>
<th>736 AL Lo-VOC</th>
<th>748 PA Clear</th>
<th>748 PA Pigmented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>2500 ± 700 cps</td>
<td>3500 ± 700 cps</td>
<td>200 ± 50 cps</td>
<td>200/300 ± 50 cps</td>
</tr>
<tr>
<td>Total Volume Solids (ASTM D-2697)</td>
<td>74%</td>
<td>83%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>VOCs (ASTM D-2369-81)</td>
<td>225 g/l</td>
<td>99 g/l</td>
<td>100 g/l</td>
<td>95 g/l</td>
</tr>
<tr>
<td>Tensile Strength (ASTM D-412)</td>
<td>4200 ± 300 psi</td>
<td>4000 ± 300 psi</td>
<td>2500 ± 300 psi</td>
<td>2300 ± 300 psi</td>
</tr>
<tr>
<td>Elongation at Break (ASTM D-412)</td>
<td>230 ± 50 %</td>
<td>250 ± 50 %</td>
<td>75 ± 25 %</td>
<td>50 ± 20 %</td>
</tr>
<tr>
<td>Tear Resistance (Die C, ASTM D-624)</td>
<td>400 ± 50 pli</td>
<td>400 ± 50 pli</td>
<td>300 ± 50 pli</td>
<td>300 ± 50 pli</td>
</tr>
<tr>
<td>Hardness (ASTM D-2240)</td>
<td>90 ± 5 Shore A</td>
<td>90 ± 5 Shore A</td>
<td>50 ± 5 Shore D</td>
<td>50 ± 5 Shore D</td>
</tr>
<tr>
<td>Pot Life</td>
<td>45-60 minutes</td>
<td>45-60 minutes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Application**

**Sikalastic 735 AL, 736 AL Lo-VOC** - Thoroughly mix Sikalastic 735 AL and 736 AL Lo-VOC using a mechanical mixer (Jiffy) at slow speeds 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) and backroll using a phenolic resin core roller. Apply aggregate evenly distributed at the appropriate rate immediately into wet coating. Allow coating to cure a minimum of 16 hours at 70°F and 50% RH or until tack free between coats, and a minimum of 72 hours before opening to vehicular traffic.

**Sikalastic 748 PA** - Premix Sikalastic 748 PA Part A and Part B before combining. Add equal amounts of Part B to Part A while mixing using a mechanical mixer (Jiffy) at medium speed. Mix until a homogenous mixture and color is obtained (at least 3 minutes) and mix frequently during application to maintain uniform color. Scrape the sides of the container to ensure that no unmixed material remains and use care not to whip air into the material as this may result in pinhole blisters or shortened pot life. Pot life is 45-60 minutes at 75°F and 50% RH. **Do not dilute under any circumstances.** Apply at the recommended coverage rate (see System Guide) and backroll using a phenolic resin core roller. Allow 2-4 hours at 70°F and 50% RH or until tack free between coats and 24-48 hours before permitting heavy pedestrian or 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.

**Accelerator** - Sikalastic 700 ACL may be added to Sikalastic 735 AL or 736 AL Lo-VOC to speed cure time particularly in cold weather conditions. Mix thoroughly prior to application. Add a maximum of 1 quart to 5 gallons (or 1:20 ratio) and only to material that will applied within 2-3 hours.

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### System Guide - Sikalastic 710/735/748 Traffic System

<table>
<thead>
<tr>
<th>Product</th>
<th>Pedestrian Traffic</th>
<th>Heavy Pedestrian</th>
<th>Decorative Quartz</th>
<th>DecoFlake®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primer</td>
<td>Sikafloor FTP - 300 sf/gal. Consult Sika for other primer options.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710 Detail Coat</td>
<td>32 mils wet over properly treated cracks and joints - see 710/715 Traffic Systems data sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>710 Base Coat</td>
<td>32 mils wet (23 mils dry) - 50 sf/gal. - see 710/715 Traffic Systems data sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>735 AL Top I</td>
<td>14 mils wet (10 mils dry) 115 sf/gal.</td>
<td>11 mils wet (8 mils dry) 145 sf/gal.</td>
<td>14 mils wet (10 mils dry) 115 sf/gal.</td>
<td>14 mils wet (10 mils dry) 115 sf/gal.</td>
</tr>
<tr>
<td>Aggregate</td>
<td>5-10 lbs/100 sf seeded/backrolled</td>
<td>10-15 lbs/100 sf - seeded</td>
<td>40-50 lbs/100 sf - broadcast</td>
<td>2-4 lbs/100 sf - seeded</td>
</tr>
<tr>
<td>735 AL Top II</td>
<td>16 mils wet (12 mils dry) 100 sf/gal.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>748 PA Top</td>
<td>13 mils wet (10 mils dry) 125 sf/gal.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Thickness</td>
<td>33 mils dry (excl. aggregate)</td>
<td>43 mils dry (excl. aggregate)</td>
<td>43 mils dry (excl. aggregate)</td>
<td>40 mils dry (excl. aggregate)</td>
</tr>
</tbody>
</table>

### System Guide - Sikalastic 720/736/748 Traffic System

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<tr>
<th>Product</th>
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<tr>
<td>Primer</td>
<td>Sikafloor FTP - 300 sf/gal. Consult Sika for other primer options.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720 Detail Coat</td>
<td>23 mils wet over properly treated cracks and joints - see 720/745 Traffic Systems data sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>720 Base Coat</td>
<td>23 mils wet (23 mils dry) - 70 sf/gal. - see 720/745 Traffic Systems data sheet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>736 AL Lo-VOC I</td>
<td>12 mils wet (10 mils dry) 133 sf/gal.</td>
<td>10 mils wet (8 mils dry) 180 sf/gal.</td>
<td>12 mils wet (10 mils dry) 133 sf/gal.</td>
<td>12 mils wet (10 mils dry) 133 sf/gal.</td>
</tr>
<tr>
<td>Aggregate</td>
<td>5-10 lbs/100 sf seeded/backrolled</td>
<td>10-15 lbs/100 sf - seeded</td>
<td>40-50 lbs/100 sf - broadcast</td>
<td>2-4 lbs/100 sf - seeded</td>
</tr>
<tr>
<td>736 AL Lo-VOC II</td>
<td>14 mils wet (12 mils dry) 115 sf/gal.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>748 PA Top</td>
<td>13 mils wet (10 mils dry) 125 sf/gal.</td>
<td></td>
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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.
- 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 lightweight 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.
- Mockups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommended.

Caution

Sikalastic 735 AL
IRRITANT. Contains Polyurethane Prepolymer (Mixture), Solvent Naphtha Petroleum (64742-95-6), n-Butyl Acetate (CAS:123-86-4) and 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (CAS:4098-71-9). Causes eye and skin irritation.

Sikalastic 736 AL Lo-VOC
IRRITANT. Contains Quartz SiO2 (CAS: 14808-60-7), Solvent Naphtha Petroleum (64742-95-6), 4-Chloro-a,a,a-trifluorotoluene (CAS:98-56-6) and n-Butyl Acetate (CAS:123-86-4). Causes eye and skin irritation.
WARNING: This product contains a chemical known to the State of California to cause cancer.

Sikalastic 748 PA
Part A: DANGER: FLAMMABLE, IRRITANT, SENSITIZER. Contains Hexamethylene Diisocyanate, Oligomers (CAS: 28182-81-2), 4-Chloro-a,a,a-trifluorotoluene (CAS: 98-56-6) and 3-isocyanatomethylcyclohexyl Isocyanate (CAS:4098-71-9). Keep away from heat, sparks, sunlight, electrical equipment, flame or other sources of ignition. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE. Use only in well ventilated areas. Open doors and windows during use. Causes eye/skin/respiratory irritation. May cause skin and respiratory sensitization. Inhalation can result in headaches and dizziness. Harmful if swallowed. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

Part B: DANGER: FLAMMABLE, CORROSIVE, IRRITANT. Avoid direct contact. Contains Cyclohexanamine, 4,4’-methylenebis-(1-methylpropyl) (CAS: 154279-60-4) and 4-Chloro-a,a,a-trifluorotoluene (CAS: 98-56-6). Keep away from heat, sparks, sunlight, electrical equipment, flame or other sources of ignition. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE. Use only in well ventilated areas. Open doors and windows during use. Corrosive to eyes/skin/digestive tract. Causes burns to eyes/skin/ digestive tract. Causes respiratory irritation. Inhalation can result in headaches and dizziness. Harmful if swallowed. Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.
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.

Clean Up
Wear chemical resistant gloves/goggles/clothing. In 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 shoe, nub or tips or small skis to prevent ruptures. The use of metal augers 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.