BUILDING TRUST
CONSTRUIRE LA CONFIANCE

SYSTEM DATA SHEET

Sikalastic® Vehicular Traffic 2500

High-solids polyurethane waterproofing, traffic-bearing membrane systems for vehicular areas

PRODUCT DESCRIPTION

Sikalastic® Vehicular Traffic 2500 is a fluid-applied polyurethane waterproofing system using a fast-setting, two-component reactive curing mechanism. The system is low in odour and volatile organic compounds (VOC).

Sikalastic® Vehicular Traffic 2500 is composed of:
- Sikalastic® M 270 NP: Two-component, fast-curing polyurethane base coat
- Sikalastic® TC 275: Two-component fast curing aromatic polyurethane top coat

Optional components

Primer
- Sikalastic® P 255: Polyurethane-based primer for Sikalastic® deck coatings

UV exposure
- Sikalastic® TC 295: High-performance, two-component, aliphatic, polyaspartic-modified, high-solids, polyurethane waterproofing coating

WHERE TO USE

Sikalastic® Vehicular Traffic 2500 may only be used by experienced professionals.

- Stadiums
- Parking garages
- Commercial construction
- Building and restoration
- Plywood decks

CHARACTERISTICS / ADVANTAGES

- Two-component system provides faster setting times, even in cooler climates, to help reduce facility downtime
- Low odour/high solids allow Sikalastic® Vehicular Traffic 2500 to be used over or near inhabited structures; Non-flammable and solvent-free
- Seamless waterproof membrane helps protect concrete from freeze/thaw damage; protects occupied spaces below from water damage and has no seams that may result in leaks
- Excellent chemical and chloride resistance helps protect against common parking deck chemicals including gasoline, diesel fuel, oil, alcohol, ethylene glycol, de-icing salt, bleach and cleaning agents as well as chloride intrusion
- Provides skid resistance to increase safety and offers excellent durability and superior abrasion resistance

ENVIRONMENTAL INFORMATION

Contact Sika Canada for sustainability information on this system.

APPROVALS / CERTIFICATES

- CSA S413
- ASTM C957

SYSTEMS

System Structure	▪ Sikalastic® M 270 NP ▪ Sikalastic® TC 275 **Optional** ▪ Sikalastic® P 255 ▪ Sikalastic® TC 295
Composition	Polyurethane-based, 100 % solids
Colour	Refer to the individual Product Data Sheets.

TECHNICAL INFORMATION

Abrasion Resistance	CS-17 Wheel, 1000 g load, 1000 cycles Sikalastic® M 270 NP / TC 275	100 mg	(ASTM D4060)
	CS-17 Wheel, 1000 g load, 1000 cycles Sikalastic® M 270 NP / TC 275 / TC 295	47 mg	(ASTM D4060)

APPLICATION INFORMATION

Applied Product Ready for Use	Allow curing time of 24 hours before vehicular and pedestrian use. Extend the curing time in cool-weather conditions.

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

Sikalastic® Vehicular Traffic 2500 is designed for professional use only; not for sale to or use by the general public.

Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

- Sikaflex® HY-100 and Sikaflex® HY-150 sealants should not be used in conjunction with this urethane deck coating system due to potential for curing issues.
- If vapour drive is present or suspected, consult with your local Sika representative prior to system application.
- Sikalastic® M 270 NP and TC 275 or TC 295 have very short working times (20 min ±5) (at 21 ˚C (70 ˚F) 50 % RH). Once the material has been mixed, the coating must be poured onto the surface and applied immediately.
- Sikalastic® TC 275 will discolour if exposed to UV light. Where UV resistance is required, the application of Sikalastic® TC 295 is recommended.
- Minimum application temperature is 4 °C (40 °F).
- If areas of inadequate slip resistance exist, an additional top coat back rolled with aggregate is required.
- Do not apply to concrete that is outgassing.
- Warm temperatures will shorten working time; plan work accordingly.
- Concrete should have a minimum compressive strength of 21 MPa (3000 psi) and be cured for a minimum of 28 days.
- Do not apply Sikalastic® Vehicular Traffic 2500 to concrete slabs on grade, unvented metal pan decks or split slab applications with a waterproofing membrane between slabs. Contact Sika Technical Services.
- Be sure to allow for movement in the deck by the proper design and use of expansion and control joints.
- Select the proper type and amount of aggregate to achieve desired slip resistance.
- Contact Sika Canada's Technical Service when substrates are over 32 °C (90 °F) or under 4 °C (40 °F) or when applying to decks containing between slab membranes.
- The best method to ensure the proper wet film thickness is the use of a grid system. Divide the surface

to be coated into grids and calculate the square footage of each. Refer to the coverage chart to determine the quantity of coating needed for each grid to arrive at the required mil thicknesses. For example, one (1) pail of Sikalastic® M 270 NP should cover approximately 255–280 ft^2 or a minimum grid of 16 ft x 16 ft at 25 wet mil. Verify via site mockup.
- Avoid application when inclement weather is present or imminent.
- Do not apply to damp, wet, or contaminated surfaces.
- Not suitable for use where chained or metalstudded tires will be used.
- CAD & PDF deck coatings details are available for download from our website. Contact Sika Canada's Customer Service for guidance.
- On steep ramps in excess of 15 %, contact your local Sika representative. Do not use self-leveling grade product on slopes greater than 15 %. Do not coat expansion joints over 25 mm (1 in) wide.

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

SUBSTRATE PREPARATION

Concrete
Concrete must be fully cured (28 days), structurally sound, clean and dry (ASTM D4263). All concrete surfaces (new and old) must be shot blasted to remove previous coatings, laitance and all miscellaneous surface contamination and to provide profile for proper adhesion. Abrasive shot blasting must occur after concrete repair has taken place. Acid-etching is not permitted. Proper profile should be a minimum of ICRI CSP- 3 (as prescribed in ICRI document 03732.) For balconies and other pedestrian areas with limited space or access for shot-blasting, alternative mechanical methods can be used to achieve the recommended surface profile. Repair voids and delaminated areas with appropriate Sika® cementitious and epoxy patching materials. For application when fast turn repairs are required, Sikalastic®-350 can be used to repair patches up to 38.1 mm (1.5 in) in depth when used in aggregate slurry mix. Please refer to the Sikalastic®-350 product Data sheet for proper application techniques. All units must be applied within the specified pot life.

Surface Pre-Striping and Detailing

Non-moving joints and cracks less than 1.6 mm (1⁄16 in) wide
Apply 25 wet mils (0.6 mm) prestriping of Sikalastic® M 270 NP. Sikalastic® M 270 NP must be applied to fill and overlap the joint or crack 76 mm (3 in) on each side. Feather the edges.

Dynamic cracks and joints over 1.6 mm (1⁄16 in) wide
Must be routed to a minimum of 6 mm x 6 mm (¼ in x ¼ in) and cleaned. Install bond breaker tape to prevent adhesion to bottom of joint. Prime joint faces only with Sika® Primer-173 and fill with Sikaflex® SL 1™, NP1™. For joints deeper than 6 mm (¼ in), use appropriate backer rod. For cracks, sealant should be flush with the adjacent surface. For expansion joints, sealant should be slightly concave. After the sealant has cured, apply 25-30 wet mil (0.64–0.77 mm) of Sikalastic® M 270 NP pre-stripping over the cured sealant, overlap the joint 76 mm (3 in) on each side.

Sealed joints 25 mm (1 in) wide or less
May be overcoated with the Sikalastic® Traffic system.

Expansion joints exceeding 25 mm (1 in) wide (including the primary wide expansion-joint system)
Must <u>not</u> be coated so they can perform independently of the deck coating system. Form a sealant cant into the corner at the junction of all horizontal and vertical surfaces (wall sections, curbs, columns) by priming with Sika® Primer-173 and applying a 25 mm (1 in) wide bead of Sikaflex® NP 1. Tool to form a 45° cant. Apply masking tape to the vertical surfaces 102–127 mm (4–5 in) above the sealant cant to provide a clean termination of the vertical detail coat. After the sealant has cured, apply 25 wet mils (0.64 mm)of Sikalastic® M 270 NP over the cured cant up to the masking tape and 102 mm (4 in) onto deck surface. Where the coating system will be terminated and no wall, joint, or other appropriate break exists, cut a 6 by 6 mm (¼ by ¼ in) keyway into the concrete. Fill and coat keyway during application of Sikalastic® M 270 NP. Form a sealant cant into the corner at the junction of all horizontal and vertical surfaces (wall sections, curbs, columns) by priming with Sika® Primer-173 and applying a 25 mm (1 in) wide bead of Sikaflex® NP 1. Tool to form a 45° cant. Apply masking tape to the vertical surfaces 102–127 mm (4–5 in) above the sealant cant to provide a clean termination of the vertical detail coat. After the sealant has cured, apply 25 wet mils (0.64 mm) of Sikalastic® M 270 NP over the cured cant up to the masking tape and 102 mm (4 in) onto deck surface. In locations of high movement such as wall and slab intersections, a reinforcing fabric is required. After the sealant cant bead is applied and cured, apply 25 wet mil of Sikalastic® M 270 NP over the sealant and embed Sikalastic® Fleece-996 reinforcing fabric into the wet detail coat.

Uncoated Metal Surfaces
Remove dust, debris and any other contaminants from vent, drain pipe and post penetrations, reglets and other metal surfaces. Clean surfaces to near white per SSPC-NACE2 and prime immediately with Sika® Primer-173.

Provide appropriate cant with Sikaflex® NP 1 or Sikaflex® NP 2 sealants to eliminate 90° angles.

Plywood

All plywood must be smooth-faced, APA-stamped, and exterior grade tongue and groove plywood. Construction must conform to code, but plywood must not be less than 18 mm (23⁄32 in) thick. Plywood spacing and deck construction must follow APA guidelines. Surfaces must be free of contaminants. Priming is not necessary on clean, dry plywood. All seams must be caulked with Sikaflex® NP 1 or Sikaflex® NP 2 sealants. Prestripe 102–152 mm (4–6 in) wide with 25 wet mils (0.6 mm) of Base Coat. Reinforce all seams between plywood sheets and between flashing and the plywood deck by embedding Sikalastic® Fleece-996 into the pre-striping.

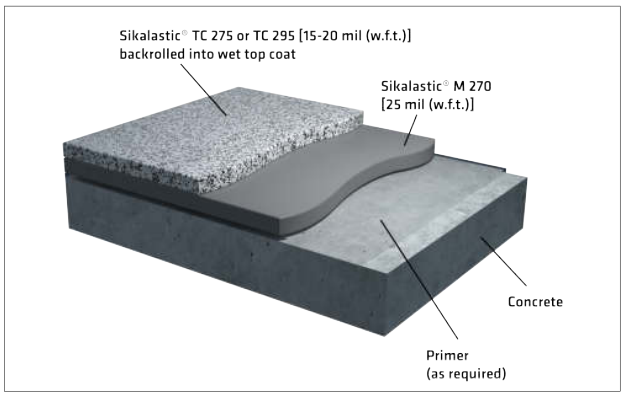
MIXING

Refer to the individual Product Data Sheets for Mixing instructions.

APPLICATION

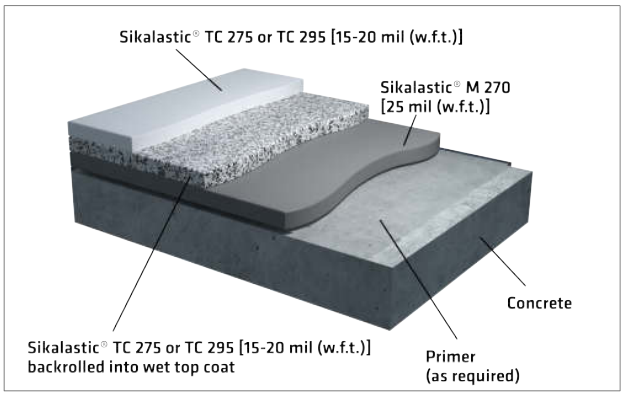
Sikalastic® Vehicular Traffic 2500 can be installed in several configurations, depending upon the degree of traffic to which the system is exposed. In areas of extreme traffic (turning lanes, pay booths, entrances and exits), apply the Extra Heavy-Duty Traffic System. The following summary briefly describes each configuration. All coverage rates are approximate.

LIGHT-MEDIUM TRAFFIC AND PARKING STALLS



1. Prime substrate is required, consult your Sika Representative
2. Apply Sikalastic® M 270 NP at 25 wet mil (0.64 mm) with an appropriate notched squeegee, at a rate of approximately 1.35–1.47 m²/L (55–60 ft²/US gal). Allow the base coat to cure 3–4 hours.
3. Apply Sikalastic® TC 275 / TC 295 at 15–20 wet mil(0.38–0.51 mm) , at a rate of 1.96–2.45 m² /L (80–100 ft²/US gal).
4. BROADCAST AND BACKROLL -- Immediately broadcast aggregate 16–30 mesh (or equivalent), rounded silica sand at a rate of 0.75–1.0 kg/m² (15–20 lb/100 ft²) into Sikalastic® TC 275 / TC 295 and backroll to encapsulate.
5. Allow minimum curing time of 24–48 hours before allowing vehicular traffic onto the coating.

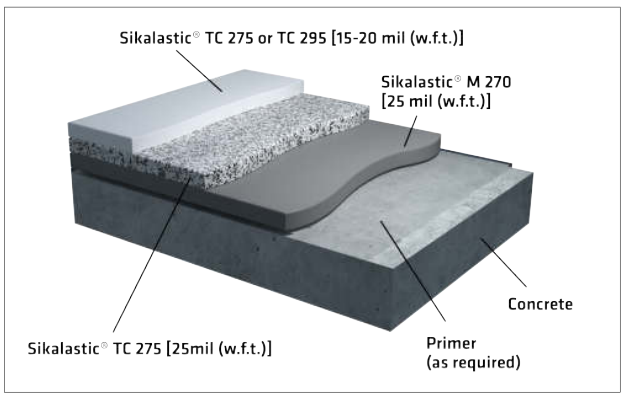
HEAVY-DUTY TRAFFIC SYSTEM



1. Prime substrate is required, consult your Sika Representative
2. Apply Sikalastic® M 270 NP at 25 wet mils (0.64 mm) , with an appropriate notched squeegee, at a rate of approximately 1.35–1.47 m² /L (55–60 ft²/US gal). Allow base coat to cure 3–4 hours.
3. Apply Sikalastic® TC 275 / TC 295 intermediate topcoat at 12-20 wet mils (0.30–0.51 mm) , with an appropriate notched squeegee at a rate of approximately 1.96–3.19 m²/L (80–130 ft²/US gal). Immediately back roll to evenly level Top Coat. The next step # 4, can utilize either method describe in 4A or 4B.
4. AGGREGATE
4A. AGGREGATE TO REFUSAL METHOD -- Immediately broadcast aggregate 16–30 mesh (or equivalent), rounded silica sand into the wet coating at the rate of 1.0–1.5 kg/m² (20–30 lb) per 100 ft². Immediately after the aggregate is broadcast and while the coating is still wet, blow any excess aggregate via a portable blower forward into the wet coating. Do not

overapply aggregate; it is acceptable to have localized wet spots in the aggregate surface after completion of this method. This process requires coordination between all members in the work crew. The blower operator, wearing clean spiked shoes, should blow the excess aggregate forward towards the freshly applied and backrolled topcoat. In this method, the coating should not accept additional sand, minimal excess aggregate is on the surface, less aggregate is used and the textured appearance should be fairly uniform.
4B. BROADCAST AND BACKROLL METHOD -- Immediately broadcast aggregate 16–30 mesh (or equivalent), rounded silica sand into the wet coating and backroll to encapsulate the aggregate. Evenly broadcast aggregate at the rate of 15–20 lb/100 ft² (0.75–1.00 kg/m²).
5. Remove all excess or loose aggregate by sweeping or vacuuming
6. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Apply Sikalastic® TC275 / 295 at15–25 wet mil (0.38–0.64 mm) , with a flat squeegee, at a rate of 1.47–2.21 m²/L (60–100 ft²/US gal). Immediately back roll to evenly level topcoat.
7. Immediately broadcast aggregate 16/30 (or equivalent) at a rate of 3–5 lb/100 ft² (0.15–0.25 kg/m²). Lightly backroll into top coat.
8. Allow minimum curing time of 24–48 hours before allowing vehicular traffic onto the coating. Existing environmental conditions affect the allowable time period.

EXTRA HEAVY TRAFFIC SYSTEM



1. Prime substrate is required, consult your Sika Representative
2. Apply Sikalastic® M 270 NP at 25 wet mils (0.64 mm), with an appropriate notched squeegee, at a rate of approximately 1.35–1.47 m² /L 5 (5–60 ft²/US gal). Immediately backroll to level base coat. Allow the base coat to cure 3–4 hours.
3. Apply Sikalastic® TC 275 / TC 295 intermediate topcoat at 25 wet mils (0.64 mm), with an appropriate notched squeegee, at a rate of approximately 1.35–1.47 m²/L (55–60 ft²/US gal). Immediately backroll to evenly level topcoat. The next step, #4, can utilize either method described in 4A or 4B
4. AGGREGATE
4A. AGGREGATE TO REFUSAL METHOD -- Immediately broadcast aggregate 16-30 mesh or equivalent, rounded silica sand into the wet coating at a rate of 1.0–1.75 kg/m² (20–35 lb/100 ft²). Immediately after the aggregate broadcast and while the coating is still wet, blow any excess aggregate via a portable blower forward into the wet coating. Do not over apply aggregate; it is acceptable to have localized wet spots in the aggregate surface after completion of this method. This process requires coordination between all members in the work crew. The blower operator, wearing clean spiked shoes, should blow the excess aggregate forward towards the freshly applied and backrolled topcoat. In this method, the coating should not accept additional sand, minimal excess aggregate is on the surface, less aggregate is used and the textured appearance should be fairly uniform.
4B. BROADCAST AND BACKROLL METHOD -- Immediately broadcast aggregate 16-30 mesh or equivalent, rounded silica sand into the wet coating and backroll to encapsulate the aggregate. Evenly broadcast aggregate at a rate of 0.75–1.25 kg/m² (15–25 lb/100 ft²/US gal).
5. Remove all excess or loose aggregate by sweeping or vacuuming.
6. Ensure there is no moisture on the surface of the aggregate/membrane before application of topcoat. Apply Sikalastic® TC275 / 295 at 0.38–0.64 mm (15–25 mil) wet, with a flat squeegee, at a rate of 1.46–2.21 m² /L (60–100 ft²/US gal). Immediately backroll to evenly level topcoat.
7. Immediately broadcast 16/30 (or equivalent) at the rate of 0.15–0.25 kg/m² (3–5 lb/100 ft²). Lightly backroll into top coat.
8. Allow minimum curing time of 24–48 hours before allowing vehicular traffic onto the coating. Existing environmental conditions affect the allowable time period.

Important Note: All coverage rates are approximate and may vary due to the application technique used. Coverage rates are affected by substrate texture, choice and distribution of aggregate, intermediate aggregate load and environmental conditions and application methods and are not under the control of Sika. Ensure that an adequate amount of aggregate is utilized to achieve required slip resistance. Exterior applications must utilize Sikalastic® TC 295 at the specified coverage rate of 15–20 wet mil.

MOCKUP

Provide mockup of at least 9.3 m^2 (100 ft^2) to include surface profile, sealant joint, crack, flashing and juncture details and allow for evaluation of slip resistance and appearance. Install mockup with specified coating types and with other components noted. Locate where directed by architect. Mockup may remain as part of work if acceptable to architect.

CLEAN UP

Clean all tools and equipment immediately after use with SikaSwell® 990 or xylene. Cured material must be removed mechanically.

MAINTENANCE

CLEANING

See Sikalastic® Traffic maintenance technical bulletin. Regular cleaning and maintenance will prolong the life of all polymer coatings systems, enhance their appearance and reduce any tendency to retain dirt.

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)