

SYSTEM DATA SHEET Sikalastic[®] Vehicular Traffic 2900

Fast-curing, methyl methacrylate / polyurethane waterproofing, traffic-bearing membrane system for vehicular areas

PRODUCT DESCRIPTION

Sikalastic[®] Vehicular Traffic 2900 is a fluid-applied polyurethane-modified methyl methacrylate waterproofing system. The rapid cure characteristic of the system allows for full system cure within a single day – minimizing facility down time. Sikalastic[®] Vehicular Traffic 2900 bridges cracks at low temperatures and can be opened to traffic in just one (1) hour after final application.

Sikalastic® Vehicular Traffic 2900 is composed of:

- Sikalastic[®] P 280 FS: MMA solvent-free, twocomponent, 100 % reactive, low viscosity primer
- Sikalastic[®] P 281 FS: MMA solvent-free, two component, 100 % reactive, high viscosity low VOC primer
- Sikalastic[®] M 290 FS: Polyurethane-modified, methyl methacrylate (PMMA) waterproofing base coat
- Sikalastic[®] TC 297 FS: MMA solvent-free, twocomponent, 100 % reactive intermediate coat
- Sikalastic[®] TC 299 FS: MMA solvent-free, twocomponent, 100 % reactive pigmentable top coat
- Sikafloor[®] PGM 155 Pronto: Powder pigment
- Sikalastic[®]-918 FS: Powder hardener
- Sikalastic[®]-908 FS: Primer additive

WHERE TO USE

Sikalastic[®] Vehicular Traffic 2900 may only be used by experienced professionals.

- Stadiums
- Parking garages
- Plaza decks
- Loading docks
- Garbage rooms
- Commercial construction
- Building and restoration

CHARACTERISTICS / ADVANTAGES

- Blend of polyurethane and methyl methacrylate technologies provides extreme durability and abrasion resistance while maintaining crack-bridging properties
- Rapid cure allows for quick installation with minimal facility downtime
- Low temperature cure extends application season
- Seamless, impervious coating that is easy to clean and maintain
- Flexible system that withstands temperature swings

APPROVALS / CERTIFICATES

- CSA S413
- ASTM C957

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| System Structure | Sikalastic[®] P 280 FS or Sikalastic[®] P 281 FS Sikalastic[®]-908 FS Sikalastic[®] M 290 FS Sikalastic[®] TC 297 FS Sikalastic[®] TC 299 FS | |
|------------------------|--|--------------|
| Composition | 100 % solids | (ASTM D1259) |
| Colour | Refer to the corresponding Product Data Sheets. | |
| APPLICATION INFORMATIC | DN | |

| Applied Product Ready for Use | Curing Time Most of the components of the Sikalastic [®] Vehicular Traffic 2900 system fully cure within one hour when properly installed. As an exception, Sikalastic [®] M 290 FS will cure within one to one and a half hours. |
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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 2900 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 personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Important considerations: Sikalastic® Vehicular Traffic 2900 is a multiple component system that utilizes a methyl-methacrylate (MMA) resin. It is critical that the instructions listed in the Safety Data Sheet and on the product label for every component of the system be read, understood and followed. MMA resins are flammable liquids in their uncured state. Smoking, open flames or sparks should not be permitted during the handling of the product. Explosion safe ventilation must be used during the application to minimize vapour collection in the installation area and to improve overall air quality for the crew. Protect or remove food items prior and during the installation of the system to avoid any possible contamination.

MMA resins have a discernible odour. This smell makes people aware of the presence of MMA. The material has an extremely low odour threshold of 83 ppb (parts per billion) which dissipates upon curing (approximately 45 minutes to 1 hour). This low odour threshold can create concerns when working in areas where the public can be exposed to the odour. This odour, when below

permissible exposure limits, does not pose a hazard. It is the responsibility of the applicator to insure proper ventilation is established on site to avoid potential odour concerns as well as communicate product expectations to tenants or the surrounding public. In cases where the general public may be affected, an exhaust system will need to be set up. This needs to be planned ahead of time in order to make certain that the proper equipment will be accessible on site. Many projects will require the "tenting off" of certain areas.

- Sikalastic[®] Vehicular Traffic 2900 is not designed to be applied on plywood.
- If vapour drive is present or suspected, please consult with your local Sika Technical Representative prior to system application.
- Not for use in areas exposed to strong solvents(consult Sika Technical Service).
- Proper airflow is critical to curing MMA materials. The use of fans is mandatory where airflow is restricted.
- Minimum application temperature is -1 °C (30 °F).
- 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 2900 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 Technical Service when substrates are over 32 °C (90 °F) or under -1 °C (30 °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

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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.

- Avoid application when inclement weather is present or imminent.
- Do not apply to damp, wet, or contaminated surfaces.
- Sikalastic[®] Vehicular Traffic 2900 is not suitable for use where chained or metal-studded tires will be used.
- CAD & PDF deck coatings details are available for download from our website, contact Sika's Customer Service for guidance.
- On steep ramps in excess of 15 %, contact your local Sika Technical Representative. Do not use self-leveling grade product on slopes greater than 15 %. Do not overcoat expansion joints.

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 safetyrelated 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 CSP3 (as prescribed in ICRI document 310.2R - 2013.) 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 SikaEmaco 6000, refer to the product data sheet for specific instructions. When time permits, SikaEmaco 1060, 1060DR or 1060EX may be used for repair purposes. Wait 24 hours before applying Sikalastic® Vehicular Traffic 2900.

Prime with Sikalastic[®] P 281FS/ Sikalastic[®]-908 FS before applying SikaEmaco 6000. Measure 3 quarts of resin and 1 quart of Sikalastic[®] 908 FS into pail and add proper amount of powder hardener. See mixing chart below. Mix with drill mixer for 30 seconds or until the powder hardener is completely dissolved. Apply primer at approximately 9.3 m² (100 ft²) per mixed gallon. Measure, add, and mix the SikaEmaco 6000 Resin, Powder Component, and necessary aggregate (if required) in the proportions recommended on the product data sheet. Use mixture to repair any damaged concrete, or to slope any areas as needed. Once cured, material must be re-primed before topping system is applied. Proceed with application as usual. All units must be within the specified pot life.

Surface Pre-Striping and Detailing

For non-moving joints and cracks less than 1.6 mm (1 /16 in) wide:

Apply 152.2 mm (6 in) pre-stripe with Sikalastic[®] P 281FS/ Sikalastic[®]-908 FS or Sikalastic[®] P 281 FS /Sikalastic[®]-908 FS using a short-nap roller, must be applied to fill and overlap the joint or crack 76 mm (3 in) on each side. Just before application of Sikalastic[®] P 281FS/ Sikalastic[®]-908 FS or Sikalastic[®] P 281 FS /Sikalastic[®]-908 FS, remove all dust, dirt and contaminants. Allow Primer to dry tack-free. On the same day, apply a 102 mm (4 in) pre-stripe of Sikalastic[®] M 290 FS at 25 mil. Sikalastic[®] M 290 FS must be applied to fill and overlap the joint or crack 51 mm (2 in) on each side. Feather the edges.

Note: For non-moving joints and cracks, prime the crack before applying Sikalastic[®] M 290 FS at 25 mils using a notched trowel - for faster detailing.

Dynamic cracks and joints over 1.6 mm (1/16 in) wide:

Must be routed to a minimum of 6 mm x 6 mm (1/4 in x 1/4 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 2 or Sikaflex® NP 2. 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. Sealed joints 25 mm (1 in) wide or less can be coatedover with the Sikalastic® Traffic system.

Expansion joints exceeding 25 mm (1 in) wide, including the primary wide expansion-joint system: Not ot to 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 2. 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, prime with Sikalastic® P 281FS/ Sikalastic[®] 908 FS or Sikalastic[®] P 281 FS /Sikalastic[®] 908 FS at 100 ft²/US gal. Apply Sikalastic[®] M 290 FS at 25 wet mil (0.64 mm) over the cured cant up to the masking tape and 102 mm (4 in) onto deck surface.

Note: For a non-moving cant bead, Sikafloor-100 PAS Pronto can be used for rapid cure, refer to the product data sheet for specific instructions. Where the coating system will be terminated and no wall, joint, or other appropriate break exists, cut a 3 mm x 3 mm(1/8 in x 1/8 in) keyway into the concrete. Fill and coat keyway during application of Sikalastic[®] M 290 FS.

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MIXING

Refer to the individual product data sheets for Mixing instructions and Sikalastic[®]-918 FS (Powder hardener) dosage. Sikalastic[®]-918 FS is required to cure all components.

APPLICATION

Heavy-Duty System



Heavy-Duty Traffic System

Apply the properly mixed Sikalastic[®] P 280 FS/Sikalastic®-908 FS or Sikalastic® P 281 FS/Sikalastic®-908 FS resin to the properly repaired concrete. For recoat application, only use Sikalastic® P 281 FS/Sikalastic®-908 FS as a primer. Apply at approximately 9.3 m² (100 ft²) per mixed gallon or about 16 mil. Allow primer to cure tack-free to an even, satinlike gloss and re-prime any dry spots. Apply the properly mixed Sikalastic[®] M 290 FS at 3 m² (32 ft²) per gallon or 50 mil, using a notched tool (or trowel). Material may not be completely tack-free upon cure. Backroll the Sikalastic® M 290 FSS only if necessary, to aid in leveling. If performed, backroll must be done immediately. Apply the properly mixed Sikalastic® TC 297 FS at 7.4 m² (80 ft²) per gallon, at 20 mil (wet), using a squeegee and backroll method. Immediately broadcast with the appropriate well-graded 16-30 mesh aggregate into the wet coating to refusal at a rate of 1.0-1.5 kg/m² (20-30 lb/100 ft²). Remove excess aggregate after cure. Note that larger and angular aggregates can be used for a more aggressive texture. This will impact coverage rate of Sikalastic® TC 299 FS.

Apply the properly mixed Sikalastic[®] TC 299 FS at 7.4 m²

(80 ft²) per gallon, at 20 mil (wet) thickness using squeegee and backroll method. All components of the Sikalastic[®] Vehicular Traffic 2900 system fully cure in approximately one (1) hour when properly installed. Note that the selected aggregate must be well graded with minimum fines. Fines can inhibit wax formation and proper curing.

Mock-Up

Provide mockup of at least 9.3 m² (100 ft²) 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 tools with Sikafloor 100 CLN Pronto, an MMA solvent. Other solvents such as xylene or acetone may also be used. Collect and dispose of all site waste.

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 enduse 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

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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

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