



# PRODUCT DATA SHEET

## Sikalastic®-270 NPR

POLYURETHANE BASE COAT FOR SIKALASTIC® TRAFFIC 2500, 2530, 2575 AND 2850 DECK COATING SYSTEMS

### PRODUCT DESCRIPTION

Sikalastic®-270 NPR is a two-component for polyurethane base coat for use in Sikalastic® Traffic 2500, 2530, 2575 and 2850 deck coating systems. Sikalastic®-270 NPR is a base coat with outstanding mechanical properties, including excellent elongation without the use of primer.

### WHERE TO USE

- Stadiums
- Balconies
- Parking Garages
- Commercial Construction
- Building and Restoration
- Plywood Decks/Balconies
- Plaza Decks

### CHARACTERISTICS / ADVANTAGES

- Primerless base coat provides a simpler application process and material and labor cost savings
- Two-component base coat provides faster setting times, even in cooler climates
- Seamless waterproof membrane helps protect concrete from freeze/thaw damage
- Can be used with or without a primer

### PRODUCT INFORMATION

<b>Packaging</b>	18 L (4.76 US gal.) pail	
<b>Colour</b>	part A: Light grey - part B: Clear/Amber; Mixed : Ligth Grey	
<b>Shelf Life</b>	12 months in original, unopened containers	
<b>Storage Conditions</b>	Store dry between +5 °C and +32 °C (41 °F and 89 °F). Condition the product between +18 °C and +30 °C (65 °F and 86 °F) before use.	
<b>Volatile organic compound (VOC) content</b>	3 g/l	(ASTM D-2369-81)
<b>Solid content by volume</b>	100%	(ASTM D-2697)
<b>CSC MasterFormat®</b>	07 18 00 (09 66 23.16)   TRAFFIC COATINGS	
<b>Shore A Hardness</b>	80 +/- 5	

<b>Abrasion Resistance</b>	6 mg loss	(ASTM D-4060) Taber Abraser, CS-17 Wheel: 1000 g (2.2 lb)/1000 cycles
<b>Tensile Strength</b>	9 MPa (1305 lb/psf)	(ASTM D638) Type IV
<b>Elongation at Break</b>	≥ 430 %	(ASTM D638) Type IV
<b>Pull-Off Strength</b>	2.4 MPa (345 psi)	(ASTM D 4541)
<b>Tear Strength</b>	8.03 KN/m (210 pounds/linear in)	(ASTM D624) Die C
<b>Crack Bridging Ability</b>	Passes : 1.6 mm (1/16 inch) @ -26°C	(ASTM C 957)
<b>Chemical Resistance</b>	Contact Sika Canada	
<b>Permeability to Water Vapour</b>	Water Vapour Transmission Water Vapour Permeability Water Vapour Permeance	0.028 g/hr/m <sup>2</sup> (0.04 grain/hr/ft <sup>2</sup> ) (ASTM E96) 0.0013 ng/Pa/s/m <sup>2</sup> (0.09 perm in) Procedure B 0.026 ng/Pa/s/m <sup>2</sup> (4.65 x 10 <sup>-5</sup> perms)
<b>Water Absorption</b>	0.26 %	(ASTM D570)
<b>Chloride Ion Diffusion Resistance</b>	Negligible as per the "WHITING" table	(AASHTO T-277)
<b>Mixing Ratio</b>	A : B = 2 : 1 per volume	
<b>Consumption</b>	1.2 - 1.6 m <sup>2</sup> /L (50 - 65 ft <sup>2</sup> /US gal.) at 25 - 30 mil w.f.t. Typically one (1) coat is required, though on higher absorbency substrates additional coats may be required. <i>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.</i>	
<b>Pot Life</b>	20 minutes	
<b>Curing Time</b>	<b>Recoat time</b> <b>Full cure</b>	between 6 and 24 hours 7 days
<b>Waiting Time / Overcoating</b>	between 6 and 24 hours	(ASTM D1640)

## 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

- Maximum moisture content of concrete substrate by weight when measured with a Tramex CME is 4% when used without primer.
- 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.

- Do not store materials outdoors exposed to sunlight for prolonged periods.
- Do not thin with solvents.
- 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 through the cured system.
- Do not apply to a porous or damp surface where moisture vapour 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.
- 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 or pounding water.
- Sikalastic®-270 NPR is not UV stable and must be top coated or protected by a separate wearing course.
- Sikalastic®-270 NPR must be kept clean and recoated within 24 hours. 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.
- Cracks or ruptures which develop in the structure after the waterproofing traffic system has been installed will not be bridged by the waterproofing traffic system and need to be repaired according to the recommended standard crack treatment details per this PDS.

**Note:** Low temperatures and low humidity will slow down the cure, and high temperatures and high humidity will accelerate it.

## 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 Preparation

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter, coatings and bond inhibiting material from the surface by appropriate mechanical means, in order to achieve a profile equivalent to ICRI / CSP 3-4. The compressive strength of the concrete substrate should be at least 25 MPa (3625 psi) at 28 days and at least 1.5 MPa (218 psi) in tension at the time of application of the selected Sikalastic® system. Surface defects should be repaired with an

appropriate Sika® repair material before beginning installation. Contact Sika Canada for advice and product recommendations. Abrasive shot blasting must occur after concrete repair has taken place. 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 profil. Acid-etching is not permitted.

### Detailing

#### For cracks less than 1.5 mm (1/16 in) in width:

Apply a 25 mil detail coat of Sikalastic®-270 NPR extending 50 mm (2 in) on either side and centered over the crack.

#### For cracks 1,5 mm (1/16 in) in width or greater and less than 25 mm (1 in) width:

Must be routed to at least 6 mm x 6 mm (¼ in by ¼ in), and sealed with an appropriate Sikaflex® sealant, installed per sealant Product Data Sheet, and coated with a 25 mil detail coat of Sikalastic®-270 NPR, extending 50 mm (2 in) on either side and centered over the crack. Non-moving cracks can be filled with compatible rigid repair materials.

**NOTE:** Cracks may indicate a structural issue and should be addressed by a structural engineer or appropriate design professional.

#### For joints greater than 25 mm (1 in) in width:

These joints should be treated as expansion joints and brought up through the system and/or use Emseal Expansion Joint. For additional questions please contact Sika Technical Services.

#### Fabric Reinforcement:

An optional 75 mm or 150 mm (3 in or 6 in) wide Sikalastic Flexitape Heavy fabric strip may be embedded within the base coat. Flexitape width shall be chosen such that a minimum of 25 mm (1 in) tape is embedded on either side of the crack/joint. Apply additional coating as required to fully embed the Flexitape in the coating.

#### Panelized Joints:

Panelized joints that are restrained across the joint and without differential movement may be sealed and the deck coating, including detail coat, applied over the joint.

**NOTE:** Movement within panelized joints may cause deterioration of the aggregated wear coat, in which case the joints should be treated as expansion joints and brought up through the Sikalastic Traffic System and sealed with Sikaflex® sealant. For additional questions please contact Sika Technical Services.

## MIXING

Precondition both A and B components to a temperature of approximately +21 °C (70 °F). Pre-mix each component of Sikalastic®-270 NPR separately. Add entire contents of Part A into Part B. Mix components with a slow-speed drill (300 - 450 rpm) using a drill fitted with an *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container to minimize air entrapment for a minimum of three (3) minutes. Scrape down sides and bottom of mixing vessel, then mix again for 2 minutes. Keep the mixing paddle submerged during mixing to avoid adding air into the mixture. When completely mixed, Sikalastic®-270 NPR should be uniform in colour and consistency.

**Mix only that quantity which can be used within its pot life.**

## APPLICATION

Apply Sikalastic®-270 NPR using a properly notched squeegee and Immediately back roll.

Please see the applicable Sikalastic®Deck Coating system data sheet for total system and aggregate surface preparation and application. Extend base coat over entire area including previously detailed cracks and joints. Allow coating to cure a minimum of 6 hours at +21 °C (70 °F) and 50 % R.H. before top coating.

Sikalastic®-270 NPR is applied without primer but also can be used with primer applications per system application instructions.

## Removal

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

## CLEAN UP

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

## 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](http://www.sika.ca)

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### Other locations

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

### Product Data Sheet

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