



SYSTEM DATA SHEET

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TRAFFIC COATINGS

Sikalastic®-3900 Traffic System

HIGH-PERFORMANCE, MULTI-COMPONENT, SOLVENT-FREE, TRAFFIC DECK WATERPROOF SYSTEM

Description Sikalastic®-3900 Traffic System utilizes polyurethane and epoxy technologies to protect steel-reinforced, concrete traffic and pedestrian decks from the damaging effects of chlorides and water ingress.

With fully-bonded adhesion to concrete through the use of specialized primers, the system is built on the reliable waterproofing properties of Sikalastic®-390 elastomeric membrane. Specialized Sikalastic® topcoats with broadcast aggregates are then applied as durable textured wear course layers that can be tailored to suit the individual needs of various traffic zones, exposures and installation time constraints.

Sikalastic®-3900 Traffic System compliments Sika’s vast range of concrete repair, strengthening, corrosion mitigation and joint treatment systems as part of a comprehensive solutions approach to preservation and extension of a structure’s useful service life.

Where to Use Use on covered, exposed and/or heavy-use concrete decks in parking structures, pedestrian walkways and plaza decks.

- Advantages**
- System draws on a range of versatile component products used to build a tailored solution to suit unique project conditions.
 - Uses 2-component, chemical cure polymer technology for uncompromising durability and reliability.
 - Solvent-free 100 % solids materials enables safe, odour-free installation in occupied facilities and jobsites.
 - UV resistant topcoat option to resist discolouration, fading and breakdown in sunlight exposed conditions.
 - Fast-cure component options for quicker installation under tight time constraints.
 - Specialized primers promote full bond to concrete for system longevity and prevention of lateral water underflow.
 - Bridges pre- and post-application cracks.
 - Remains elastomeric and resilient during extreme temperature changes. Chemically resistant to de-icing salts and all vehicle fluids and fuels.
 - Installed by experienced contractors.
 - Conforms to CAN / CSA-S413 for Parking Structures.
 - Potential LEED® credits.

Sikalastic®-3900 System Components	Product Name	Product Description
Primer Options	Sika® MT Primer	Moisture-tolerant and adhesion promoting primer for dry or damp substrates
	Sikalastic®-120 FS Primer	Adhesion -promoting fast-setting primer
Membrane	Sikalastic®-390 Membrane	2-component elastomeric polyurethane waterproofing membrane
Wear Course Topcoat Options	Sikalastic®-391 N	Standard 2-component polyurethane-based wear course
	Sikalastic®-394	2-component aliphatic, UV resistant polyurethane wear course

TYPICAL PARKING DECK SYSTEMS *Mils thicknesses equate to both w.f.t. and d.f.t., being 100 % solids materials.*

Zone	Sika® MT Primer or Sikalastic®-120 FS Primer	Sikalastic®-390 Membrane	Wear Course I: Sikalastic®-391 N / -394*	Wear Course II: Sikalastic®-391 N / -394*
Light (parking stalls and pedestrian)	6 - 10 mils	25 - 30 mils	18 -20 mils	-
Medium (drive lanes)	6 - 10 mils	25 - 30 mils	18 - 20 mils	15 - 20 mils
Heavy (turn lanes, ramps, entry/exit, ticket booth)	6 - 10 mils	25 - 30 mils	25 - 30 mils	15 - 25 mils

**Use Sikalastic®-394 as final wear course for UV resistance to sunlight exposure.*

- Additional wear course options, such as Sikalastic®-220 FS and Sikalastic®-8200, are also available. Contact your Sika Canada technical representative for features, advantages and recommendations.
- Zone descriptions and thicknesses above are recommended for guideline purposes. If thickness variations are required outside of these parameters, contact Sika Canada.
- Surface profile and/or porosity will influence consumption required to achieve the minimum film thicknesses recommended.
- For surface textures (broadcast aggregates) and all other technical, application information and product limitations, refer to the Product Data Sheet of the related product. For slab-on-ground solutions contact Sika Canada.

Technical Data

Summary provided below, refer to individual product data sheets for complete technical data information

	Sikalastic®-390 Membrane	Sikalastic®-391 N	Sikalastic®-394
Packaging	18 L (4.76 US gal.)	17.5 L (4.62 US gal.)	18 L (4.76 US gal.)
Colour	Green	RAL 7012 Basalt Grey, RAL 7015 Slate Grey, RAL 7046 Telegrey 2, RAL 9017 Traffic Black	
Yield	1.3 - 1.6 m ² /L (53 - 65 ft ² /US gal.) at 25 - 30 mils d.f.t.	1.6 - 2.2 m ² /L (65 - 90 ft ² /US gal.) at 18 - 25 mils d.f.t.	1.6 - 2.2 m ² /L (65 - 90 ft ² /US gal.) at 18 - 25 mils d.f.t.
Shelf Life	1 year	1 year	1 year
Mix Ratio (by volume)	A:B = 2:1	A:B = 2.5:1	A:B = 2.25:1
Properties at 23 °C (73 °F) and 50 % R.H.			
Solids Content	100 %	100 %	100 %
Pot Life, 250 g (8.8 oz)	20 minutes	35 - 40 minutes	45 minutes
Drying Times at 23 °C			
Recoat time	6 hours	8 hours	12 hours
Traffic	48 hours	24 hours	48 hours
Full cure	7 days	7 days	7 days
<i>Drying times will vary according to air and substrate temperature and humidity.</i>			
Water Vapour Transmission	0.028 g/h/m ²		
ASTM E96	(0.04 grain/h/pi ²)		
Water Vapour Permeability	0.0013 ng/Pa/s/m ²		
ASTM E96	(0.09 perm in)		
Water Vapour Permeance	0.026 ng/Pa/s/m ²		
ASTM E96	(4.65 x 10 ⁻⁵ perms)		
Chloride Permeability AASHTO T-277	Negligible as per the "WHITING" table		
Fire Rating CAN/S 102.2	Class A		
Flexibility at Low Temperature ASTM C957	Passes 1.5 mm (1/16 in)		
Tensile Strength	9.1 MPa (1320 psi) - ASTM D638	29 MPa (4206 psi) - ASTM D412	3.4 MPa (450 psi) - ASTM D638
Elongation at Break	435 % (ASTM D638)	105 % (ASTM D412)	145 % (ASTM D638)
Tear Strength	38.22KN/m lin.	N-A	13.9 KN/m lin.
ASTM D624, Die C	(218 lb/lin. in)		(79.1 lb/lin. in)
Shore A Hardness ASTM D2240	80	> 90	85
Abrasive Resistance ASTM D4060			
Taber Abraser, CS-17 Wheel, 1000 g (2.2 lb)/1000 cycles	6 mg of loss	50 mg of loss	15 mg of loss
Water Absorption ASTM D570	0.26 %	0.13 %	0.61 %
Rapidly Renewable Material			
Non food vegetable oil	55 %	N-A	42 %
VOC Content	3 g/L	14 g/L	1 g/L

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.

HOW TO USE

Contractor Selection Sikalastic®-3900 Traffic System is installed by Sika recommended applicators. Contact Sika Canada for advice and recommendations at: www.sika.ca or toll-free at 1-800-933-7452.

Surface Preparation **General:** Surfaces must be clean, dry and sound, with a suitable surface profile. Remove all dust, laitance, grease, oils, tar, asphalt and bitumen, curing compounds, bond inhibiting impregnations, waxes, and any other contaminants. All projections, rough spots, etc. should be ground off to achieve a level surface prior to applying the system.

Concrete: All concrete surfaces to receive Sikalastic®-3900 Traffic System must be cured for 28 days using an approved curing procedure or curing agent. Clean and prepare to achieve a laitance- and contaminant-free, open surface profile by blast cleaning or equivalent mechanical means, to achieve a profile equivalent to ICRI / CSP 3 - 4. Surface defects should be repaired with an appropriate Sika® repair material before beginning installation. 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 primer.

Application Refer to the respective Product Data Sheet for complete application instructions.

Repair and Maintenance Should damage occur to a Sikalastic® Traffic System, repairs can be undertaken using the same products to ensure membrane continuity.

Contact Sika Canada for advice and recommendations at: www.sika.ca or at 1-800-933-7452.

Planned and regular maintenance will prolong the life of your Sikalastic® Traffic Systems. Maintenance guidelines are available upon request.

Limitations

- Sikalastic® Traffic Systems are best installed by skilled and experienced applicators. Contact Sika Canada for advice and recommendations.
- Not suitable for use on slab-on grade, split concrete slabs with membranes or concrete slabs over unvented metal pans. Contact Sika Canada for advice and recommendations.
- Minimum / maximum ambient and substrate temperature during application and cure: 10 / 32 °C (50 / 90 °F). Monitoring of ambient and substrate temperature should always be done when applying polyurethane and epoxy materials. Note that low temperatures and low humidity will slow down the cure, and high temperatures and high humidity will accelerate it. For applications outside of this temperature range, contact Sika Canada.
- Substrate moisture will dictate primer selection and approach. Refer to the individual product data sheets for Sikalastic®-390 Membrane as well as the corresponding Primer.
- Thicknesses of materials shown are the minimums recommended for guideline purposes. Application at lower thicknesses will compromise the Sikalastic®-3900 Traffic System performance, integrity and durability of the system. If greater thicknesses are required, contact Sika Canada.
- Sikalastic®-3900 Traffic System must always be installed in accordance with the manufacturer's instructions as per Product data sheets for each component.

Warranties

On a project specific basis, Sika Canada offers a comprehensive warranty for Sikalastic®-3900 Traffic Systems.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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

Other locations

Toronto
Edmonton
Vancouver

1-800-933-SIKA
www.sika.ca

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