

PRODUCT DATA SHEET

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TRAFFIC COATINGS

Sikalastic®-390 Membrane

TWO-COMPONENT POLYURETHANE WATERPROOFING MEMBRANE

Description	Sikalastic®-390 Membrane is a high quality, fast chemical curing, two-component, solvent-free, elastomeric and crack-bridging polyurethane waterproofing membrane. It is part of the Sikalastic® Parking Deck Waterproofing System and the Sikafloor® Industrial and Decorative Flooring Systems.																																				
Where to Use	▪ Multi-storey parking garages ▪ Parking decks and access ramps ▪ Foot bridges and walkways ▪ Plaza and rooftop decks ▪ Balconies and terraces ▪ Mechanical rooms ▪ Stadiums and arenas ▪ Shower rooms ▪ Wherever a waterproof floor is required ▪ Crack-bridging flooring systems																																				
Advantages	▪ Easy to apply for an economical application ▪ Highly resistant waterproof elastomer ▪ Solvent-free formula emitting low odours and contributing for a safer working environment ▪ Fast-curing for accelerated turnaround thus reducing duration of shutdowns ▪ Pre-measured packaging facilitating mixing process and reducing risk of using wrong mixing ratio ▪ Crack-bridging membrane minimizing the appearance of crack formation and reducing the need to make local repairs ▪ Complies with CAN/CSA-S413 -07 (ASTM C957) for Parking Structures																																				
Environmental Information	▪ Conformity with LEED®v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations ▪ Conformity with LEED®v4 EQc 2: Low-Emitting Materials																																				
	Technical Data <table><tr><td>Packaging</td><td>18 L (4.76 US gal.) pail 1500 L Kit (IBC)</td></tr><tr><td>Colour</td><td>Green</td></tr><tr><td>Yield</td><td>1.2 - 1.6 m²/L (50 - 65 ft²/US gal.) at 25 - 30 mil w.f.t. Typically one (1) coat is required, though on higher absorbency substrates additional coats maybe required. 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.</td></tr><tr><td>Shelf Life</td><td>1 year in original, unopened packaging under proper storage conditions. Store dry at temperatures between 5 and 32 °C (41 and 89 °F). Condition product to temperatures between 18 and 30 °C (65 and 86 °F) before use.</td></tr><tr><td>Mixing Ratio</td><td>A : B = 2 : 1 per volume</td></tr><tr><td colspan="2">Properties at 23 °C (73 °F) and 50 % R.H.</td></tr><tr><td colspan="2">Solids Content</td></tr><tr><td>By volume</td><td>100 %</td></tr><tr><td>By weight</td><td>100 %</td></tr><tr><td>Pot Life, 250 g (8.8 oz)</td><td>20 minutes</td></tr><tr><td colspan="2">Drying Times ASTM D1640</td></tr><tr><td>Recoat time</td><td>6 to 24 hours</td></tr><tr><td>Traffic</td><td>48 hours</td></tr><tr><td>Full cure</td><td>7 days</td></tr><tr><td colspan="2">Drying times will vary according to air and substrate temperature and humidity.</td></tr><tr><td colspan="2">Water Vapour Transmission ASTM E96</td></tr><tr><td>Procedure B</td><td>0.028 g/hr/m² (0.04 grain/hr/ft²)</td></tr></table>			Packaging	18 L (4.76 US gal.) pail 1500 L Kit (IBC)	Colour	Green	Yield	1.2 - 1.6 m²/L (50 - 65 ft²/US gal.) at 25 - 30 mil w.f.t. Typically one (1) coat is required, though on higher absorbency substrates additional coats maybe required. 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.	Shelf Life	1 year in original, unopened packaging under proper storage conditions. Store dry at temperatures between 5 and 32 °C (41 and 89 °F). Condition product to temperatures between 18 and 30 °C (65 and 86 °F) before use.	Mixing Ratio	A : B = 2 : 1 per volume	Properties at 23 °C (73 °F) and 50 % R.H.		Solids Content		By volume	100 %	By weight	100 %	Pot Life, 250 g (8.8 oz)	20 minutes	Drying Times ASTM D1640		Recoat time	6 to 24 hours	Traffic	48 hours	Full cure	7 days	Drying times will vary according to air and substrate temperature and humidity.		Water Vapour Transmission ASTM E96		Procedure B	0.028 g/hr/m² (0.04 grain/hr/ft²)
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Water Vapour Permeability ASTM E96	
Procedure B	0.0013 ng/Pa/s/m ² (0.09 perm in)
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Procedure B	0.026 ng/Pa/s/m ² (4.65 x 10 ⁻⁵ perms)
Tensile Strength ASTM D638, Type IV	9.1 MPa (1320 lb/po ²)
Elongation ASTM D638, Type IV	435 %
Shore A Hardness ASTM D2240	80
Abrasive resistance ASTM D4060	
Taber Abraser, CS-17 Wheel/ 1000 g (2.2 lb) /1000 cycles	6 mg loss
Adhesion to Concrete ASTM D4541	2.4 MPa (348 psi)
Tear Strength ASTM D624	
Die C	8.22 KN/m (218 pounds/linear in)
Water Absorption ASTM D570	0.26 %
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: 1.6 mm (1/16 in)
Rapidly Renewable Materials	55 % by weight (non-food vegetable oil)
VOC Content	3 g/L
Chemical resistance	Contact Sika Canada

Product properties are typically 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

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.

Priming

Prior to installation, it is recommended to measure maximum moisture content of concrete substrate by weight with a Tramex CME or CMExpert type concrete moisture meter.

Primer Selection :

Sika® MT Primer - For concrete with a maximum moisture content between 4 and 5 % by weight, and for metal flanges and penetrations, apply Sika® MT Primer with a flat squeegee or roller at a rate of 4 to 5 m²/L (160 to 200 ft²/US gal.) at 8 - 10 mil wet film thickness. For concrete decks with a maximum moisture content between 5 and 6 % by weight apply two (2) applications of Sika® MT Primer with a flat squeegee or phenolic resin roller at a rate of 4 to 5 m²/L (160 to 200 ft²/US gal) at 8 - 10 mil wet film thickness. Work primer well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Refer to the Product Data Sheet for additional information.

Mixing

Pre-mix each component of Sikalastic®-390 Membrane separately.

Empty component B in the correct mixing ratio into the component A container. Mix the combined components for at least five (5) minutes at low-speed drill (300 - 450 rpm) to minimize air entrapment, using a drill fitted with an *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once, to ensure complete mixing. When completely mixed, Sikalastic®-390 Membrane should be uniform in colour and consistency.

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

Application

Apply Sikalastic®-390 Membrane at a rate of 1.6 m²/L (65 ft²/US gal.) using a notched squeegee and backroll to provide a uniform 25 mil wet film thickness.

Note: At thicknesses less than 20 mil, the opacity of the material is reduced to the degree that the substrate should be partially visible through the membrane. This acts as a mechanism for quality control on site. Always ensure that the substrate is not visible through the membrane and that a minimum w.f.t. of 25 mil is achieved. Allow a minimum of 6 hours and maximum 24 hours cure time at 23 °C (73 °F) prior to installing wear course.

Crack-isolation flooring systems: When applied at 30 mil (750 microns) w.f.t. and used beneath epoxy flooring systems, it provides crack-isolation properties to minimize the transfer of cracks that may occur in the concrete substrate.

Clean Up

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

Limitations

- Sikalastic®-390 Membrane is best installed by skilled and experienced applicators. Consult Sika Canada for advice and recommendations.
- Thickness and re-coat window are critical; system will not work if installed differently.
- Minimum/maximum ambient and substrate temperature during application and cure: 10 °C/32 °C (50 °F/90 °F). 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. For applications outside of this temperature range, contact Sika Canada.
- Substrate temperature must be at least 3 °C (5.5 °F) above measured dew point temperature.
- Do not use where concrete moisture content is greater than 4 % (pbw— parts by weight) without consultation with Sika Canada.
- When concrete moisture content is greater than 4 % but ≤ 6 % (pbw— parts by weight) when measured with a Tramex® CME or CMExpert type concrete moisture meter, prime with Sika® MT Primer. If moisture content is > 6 % (pbw— parts by weight), use Sikafloor®-81 EpoCem®CA.
- Do not apply to a porous or damp surface where moisture vapour transmission will occur during application and cure.
- Minimum age of concrete must be 21 - 28 days, depending on curing and drying conditions.
- Substrate must be dry prior to application. Do not apply to frosted, wet or damp surfaces. Do not proceed if rain is imminent within 8 - 12 hours of application. Allow sufficient time for substrate to dry after rain or inclement weather to avoid potential for bonding problems.
- Do not store materials outdoors or exposed to sunlight for prolonged periods.
- Do not hand-mix or thin with solvents: mechanical mix only.
- Not suitable for on-grade concrete slabs, unvented metal pan decks, split/sandwich slabs and buried membrane conditions as well as asphalt.
- Ensure proper ventilation.
- Direct-fired gas or kerosene heaters increase the carbon dioxide content in the air and also produce significant amounts of water vapour. Properly exhaust heaters to the exterior of the building to prevent damage to the work (such as but not limited to amine blush, whitening, debonding, etc.).

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

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