

PRODUCT DATA SHEET

Sikalastic®-644 Lo-VOC

Liquid applied alkaline resistant single component saturating resin with fiberglass or polyester reinforcement

PRODUCT DESCRIPTION

Sikalastic®-644 Lo-VOC is a cold applied , highly elastic, aliphatic, single component, alkali resistant, moisture-triggered polyurethane resin designed for easy application as part of Sikalastic®-644 Lo-VOC RoofPro waterproofing systems.

USES

- Embedment and top resin for Sikalastic®-644 Lo-VOC RoofPro Waterproofing systems reinforced with Sika® Reemat.
- Saturating resin for Sikalastic®-644 Lo-VOC RoofPro systems reinforced with Sika® Fleece
- Typically applied in Sikalastic® RoofPro Direct, Plaza, Foundation wall, and Vegetated systems for both new construction and refurbishment
- Ideal for applications involving cementitious overlays and tile mortar

CHARACTERISTICS / ADVANTAGES

- Proven technology with over 30 year track record
- Single component - no mixing and ready to use
- Alkaline resistant - suitable for under tile applications
- Fully reinforced with highly conformable Sika Reemat or Sika® Fleece
- Moisture triggered chemistry that is rapidly weatherproof after application
- Resistant to ponding water
- Low VOC formula - Low Odor
- Highly elastic and crack bridging
- Seamless and fully adhered
- Vapor permeable
- UV resistant and non-yellowing
- Abrasion resistant
- Adheres to most common construction materials when suitable primer is used

ENVIRONMENTAL INFORMATION

- Environmental Product Declaration (EPD) - Cradle-to-Grave

APPROVALS / STANDARDS

- Miami Dade
- UL 790 Class A
- ASTM D 6083

PRODUCT INFORMATION

Chemical Base	Single component, moisture-triggered, aliphatic polyurethane	
Packaging	5 gal. (19 L) pails 50 gal. (189.271 L) drums	
Shelf Life	15 months, 5 gal pail 6 months, 50 gal drum	
Storage Conditions	Store dry between 35 and 77 °F (2–25 °C). Condition material to 50 - 77 °F (10 - 25°C) before using for ease of application.	
Color	White, Standard Gray; custom colors available with minimum order quantity	
Density	11.76 lb./gal. (1409.1 kg/m ³)	
Solid content by volume	80.25 %	(ASTM D-2697)
Volatile organic compound (VOC) content	14.74 g/l	(ASTM D-2369-81)

TECHNICAL INFORMATION

Resistance to Static Puncture	Please refer to Sikalastic®-644 Lo-VOC System Data Sheet (ASTM D-5602)	
Tensile Strength	Please refer to Sikalastic®-644 Lo-VOC System Data Sheet (ASTM D-751)	
Elongation at Break	Please refer to Sikalastic®-644 Lo-VOC System Data Sheet (ASTM D-751)	
Tear Strength	Please refer to Sikalastic®-644 Lo-VOC System Data Sheet (ASTM D-751)	
Solar Reflectance	CRRC Rapid Rating 0.73 (White) CRRC Rapid Rating 0.33 (Standard Gray)	
Thermal Emittance	CRRC Rapid Rating 0.91 (White) CRRC Rapid Rating 0.92 (Standard Gray)	
Service Temperature	-22–176 °F (-30–80 °C) intermittent	
External Fire Performance	UL 790 Class A (ASTM E 108)	
Coverage	Sika Reemat	Sika Fleece
	53 sf/gal - 30 mils wet film thickness	23 sf/gal - 70 mils wet film thickness
	40 sf/gal - 40 mils wet film thickness	21 sf/gal - 75 mils wet film thickness
	35 sf/gal - 45 mils wet film thickness	17 sf/gal - 95 mils wet film thickness

NOTE: Coverage rates are optimal - coverage rates will vary depending on temperature, surface roughness and porosity, and application technique.

Ambient Air Temperature	41 °F (5 °C) min. / 95 °F (35 °C) max.
Relative Air Humidity	80 % R.H. max.
Dew Point	Beware of condensation. The substrate and uncured coating must be ≥ 5 °F (3 °C) above dew point.
Substrate Temperature	41 °F (5 °C) min. / 140°F (60°C) max.
Pot Life	Sikalastic®-644 Lo-VOC is designed for fast curing. High temperatures combined with high air humidity will increase the curing process. Thus, material in opened containers should be applied immediately. In opened containers, the material will form a film after 1–2 hours approx. (at 75 °F (24 °C) and 50 % R.H.)

Waiting / Recoat Times	Ambient conditions	Minimum waiting time overcoating
	+40 °F / 50 % r.h.	18 hours
	+50 °F / 50 % r.h.	8 hours
	+70 °F / 50 % r.h.	6 hours

*After 7 days the surface must be cleaned and primed with Sika® Reactivation Primer before continuing.

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied Product Ready for Use	Ambient conditions	Rain resistant	Touch dry	Full cure
	+40 °F / 50 % r.h.	1 hour	12 hours	24 hours
	+50 °F / 50 % r.h.	1 hour	6 hours	18–24 hours
	+70 °F / 50 % r.h.	1 hour	4 hours	12–18 hours

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Minimum age of concrete must be 28 days depending on curing and drying conditions
- Do not thin with solvents
- Do not store materials outdoors directly exposed to sunlight and moisture. Cover and protect material with breathable type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Observe temperature storage and conditioning requirements
- Do not apply to substrate surfaces where moisture vapor transmission will occur during application and cure. This condition may be checked using ASTM D 4263 (Polyethylene sheet method)
- Substrate must be dry prior to application. Do not apply to a frosted, wet or damp surface. Allow sufficient time for the substrate to dry after rain or inclement weather, as there is the potential for bonding problems
- On substrates likely to exhibit outgassing apply during falling ambient and substrate temperature. If applied during rising temperature pinholing or blistering may occur
- Use sunglasses with UV filter when applying highly reflective Sikalastic®- 644 Lo-VOC White (RAL 9016)
- Do not use for indoor applications unless sufficient air flow and ventilation are provided to prevent odors and/or vapors from leaving the immediate work area
- Precautions should be taken to prevent odors and/or vapors from entering the building/structure, including

but not limited to turning off and sealing air intake vents or other means of ingress for odors and/or vapors into the building/structure during product application and cure

- For areas with direct exposure to heavy or frequent foot traffic, an additional wear coat protection with slip resistant aggregate is required Opening to traffic prior to cure may result in loss of aggregate or permanent staining and subsequent premature failure
- Any repairs required to achieve a level surface must be performed prior to application (consult a Sika representative for guidance on various product solutions). Surface irregularities may reflect through the cured system
- When applying over existing coatings or membranes compatibility and adhesion testing and subsequent approval by Technical Services is required
- Opening to traffic prior to cure may result in permanent staining and subsequent premature failure
- On grade concrete decks should not be covered with Sikalastic® RoofPro membrane systems
- Unvented metal pan, split/sandwich slab with encapsulated membrane and/or insulation, cinder fill decks, and lightweight insulating concrete deck overlays should not be covered with Sikalastic® RoofPro systems without additional deck evaluation and subsequent approval by Technical Services
- Do not subject to continuous immersion, i.e., fountains, ponds, pools, or interior of tanks
- Not recommended for use over ceramic tile

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All substrate surfaces shall be clean, dry and sound. Acceptable substrates include: sound concrete and cementitious screed, metals, wood, modified bitumen, mineralized felt, EPDM, hypalon, TPO, sprayed polyurethane foam, brick and stone, slate and tile, and existing liquid applied membranes. Reference separate System Data Sheet for specific surface preparation requirements.

Primer

Apply primer of a type suitable for the substrate. Allow primer to cure completely before applying Sikalastic®-644 Lo-VOC resin. Reference separate System Data Sheet for specific primer recommendations.

MIXING

No mixing necessary

APPLICATION

Sika® Reemat - Base Resin

Apply Sikalastic®-644 Lo-VOC resin to the primed substrate surface by means of 1/2" (12.7 mm) nap phenolic resin core roller or brush at the specified application rate to achieve a uniform and consistent wet mil thickness (reference separate System Data Sheet). Material can also be squeegee or spray applied, in which case it should also be backrolled. Apply Sika® Reemat into the wet embedment resin and roll the scrim to achieve full saturation and embedment. Reemat shall be torn/cut to conform to substrate transitions and flashing conditions, with a typical 2" (50.8 mm) reinforcement overlap. Resin shall saturate the Reemat from below. Apply additional Sikalastic®-644 Lo-VOC resin as required to ensure full scrim embedment. Allow to cure completely before applying subsequent resin layers.

Sika® Reemat - Intermediate and Top Resin

Apply Sikalastic®-644 Lo-VOC resin to the cured Sikalastic® Reemat base layer by means of 1/2" (12.7 mm) nap phenolic resin core roller or brush at the specified application rate to achieve a uniform and consistent wet mil thickness (reference separate System Data Sheet). Material can also be squeegee or spray applied, in which case it should also be backrolled. Allow to cure completely before applying subsequent resin layer, if specified.

Sika® Fleece

Apply Sikalastic®-644 Lo-VOC resin to the primed substrate surface by means of 1/2" (12.7 mm) nap phenolic resin core roller or brush to achieve a uniform and consistent thickness, applying approximately 2/3 of the resin required to achieve the specified application rate (reference separate System Data Sheet). Apply Sika® Fleece into the wet embedment resin and roll the fleece to achieve partial saturation and full embedment. Fleece shall be cut to conform to substrate transitions and flashing conditions, with typical 3" (76.2 mm) side and 6" (152.4 mm) end reinforcement overlaps. Resin shall saturate the Fleece from below. Apply remaining 1/3 of the specified resin quantity to ensure full fleece saturation and an even resin application.

CLEANING OF TOOLS

Clean all tools and application equipment with appropriate solvent immediately after use. Hardened and/or cured material can only be removed mechanically

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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Product Data Sheet

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