

PRODUCT DATA SHEET

Sikalastic®-644 Lo-VOC

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

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, 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 weather-proof after application
- Low VOC formula - low Odor
- Highly elastic and crack bridging
- Seamless and fully adhered
- Vapor permeable
- UV resistant and non-yellowing
- Abrasion and chemical resistant
- Adheres to most common construction materials when suitable primer is used

PRODUCT INFORMATION

Composition	Single component, moisture-triggered, aliphatic polyurethane	
Packaging	5 gal. (19 L) pails	
Shelf life	12 months in original, unopened and undamaged sealed containers	
Storage conditions	Store dry between 35 and 77 °F (2–25 °C). Sondition material to 50 - 77 °F (10 - 25°C) before using for ease of application.	
Colour	White, Pearl Gray; custom colors available with minimum order quantitiy	
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)			
Tensile strain 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)			
Service temperature	-22–176 °F (-30–80 °C) intermittent			
Chemical resistance	Most common roofing contaminants, oils, grease, dilute acids and base			
Yield	Sika Reemat	Sika Fleece		
	53 sf/gal - 30 mils wet film thickness	21 sf/gal - 75 mils wet film thickness		
	44 sf/gal - 40 mils wet film thickness	18 sf/gal - 85 mils wet film thickness		
	35 sf/gal - 45 mils wet film thickness	15 sf/gal - 105 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 time to overcoating	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

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- 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 loss of aggregate or 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.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

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 back-rolled. Apply Sika® Reemat into the wet embedment resin and roll the scrim to achieve full saturation and embedment. Reemat shall be 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 EQUIPMENT

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.

Sika Kenya Limited

Mudher Industrial Complex, Mombasa
Road
P.O Box 38645 - 00623 Nairobi, Kenya
Mobile: +254 711 140234 / +254 786
140234
Web: ken.sika.com

Product Data Sheet

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