BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-325 R Lo-VOC

MULTI-USE ONE COMPONENT REINFORCED LIQUID APPLIED WATERPROOFING MEMBRANE

PRODUCT DESCRIPTION

Sikalastic®-325 R Lo-VOC is a cold applied, highly elastic, aliphatic, single component, low-odor, low-VOC moisture-triggered polyurethane resin with reinforcement designed for application as part of Sikalastic® Waterproofing Systems.

USES

Typical applications include:
- Balconies
- Vegetated Systems
- Planters
- Split-Slab waterproofing
- Applications with cementitous overlays and tile mortar

CHARACTERISTICS / ADVANTAGES

- Single component - no mixing and ready to use
- 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 and chemical resistant
- Adheres to most common construction materials when suitable primer is used

APPROVALS / STANDARDS

- FM Approval Standard 4470 for Class 1 Roof Covers
- UL 790 Class A
- ASTM D 6083
- Florida Building Code

PRODUCT INFORMATION

Packaging	5 gal. pail	
Shelf Life	12 months in original, unopened and undamaged sealed containers	
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	
Solid content by volume	89%	ASTM D-2697

Volatile organic compound (VOC) content	38 g/L	ASTM D-2369-81

Resistance to Static Puncture (ASTM D-5602)

Sikalastic®-325 R Lo-VOC with Sika® Reemat Premium	**Sikalastic®-325 R Lo-VOC with Sika® Fleece 140**
> 55 lbf	> 55 lbf

Note: Data for other assemblies available upon request

Tensile Strength (ASTM D-751 Proc. B)

Sikalastic®-325 R Lo-VOC with Sika® Reemat Premium	**Sikalastic®-325 R Lo-VOC with Sika® Fleece 140**
1030 psi	900 psi

Note: Data for other assemblies available upon request

Elongation at Break (ASTM D-751)

Sikalastic®-325 R Lo-VOC with Sika® Reemat Premium	**Sikalastic®-325 R Lo-VOC with Sika® Fleece 140**
21 %	82 %

Note: Data for other assemblies available upon request

Tear Strength (ASTM D-624)

Sikalastic®-325 R Lo-VOC **with Sika® Reemat Premium**	Sikalastic®-325 R Lo-VOC **with Sika® Fleece 140**
300 lbf/in	200 lbf/in

Note: Data for other assemblies available upon request

Solar Reflectance	86.8% ASTM C-1549 (white)
Solar Reflectance Index	108 ASTM E-1980 (white)
Service Temperature	-22–176 °F (-30–80 °C) intermittent

SYSTEM INFORMATION

System Structure

Sikalastic®-325 R Lo-VOC System Guide with Sika® Reemat

	Sikalastic®-325 R Lo-VOC 10 Year**	**Sikalastic®-325 R Lo-VOC 20 year****
1. Primer	See Priming Selection	See Priming Selection
2. Base Layer: Sikalastic®-325 R Lo-VOC	50 mils wet 32 sf/gal.	50 mils wet 32 sf/gal.
3. Reinforcement:	Sika® Reemat Premium	Sika® Reemat Premium
4. Top Layer: Sikalastic®-325 R Lo-VOC	20 mils wet 80 sf/gal.	23 mils wet 69 sf/gal.
5. Top Layer: Sikalastic®-325 R Lo-VOC		23 mils wet 69 sf/gal.

Sikalastic®-325 R Lo-VOC System Guide with Sika® Fleece

	Sikalastic®-325 R Lo-VOC 10 Year**	Sikalastic®-325 R Lo-VOC 20 year**
1. Primer	See Priming Selection	See Priming Selection
2. Base Layer: Sikalastic®-325 R Lo-VOC	45 mils wet 35 sf/gal.	66 mils wet 24 sf/gal.
3. Reinforcement:	Sika® Fleece 120 (US)	Sika® Fleece 170 (US)
4. Top Layer: Sikalastic®-325 R Lo-VOC	25 mils wet 64 sf/gal.	34 mils wet 47 sf/gal.

** Substrates: Concrete or cementious, metals, woods, single-ply or bituminous, stone. Primer required (see Priming Selection). Detailing: Sika® Flexitape Heavy or Sika® Joint Tape SA centered over seams, transistions and properly treated cracks and joints.

Note: Coverage rates provided are optimal and are not guaranteed - coverage rates will vary depending on temperature, surface roughness and porosity, aggregate selection and embedment, and application technique.

APPLICATION INFORMATION

Coverage

Sika Reemat	Sika Fleece
80 sf/gal - 20 mils wet film thickness	24 sf/gal - 66 mils wet film thickness
69 sf/gal - 23 mils wet film thickness	32 sf/gal - 50 mils wet film thickness
53 sf/gal - 30 mils wet film thickness	35 sf/gal - 45 mils wet film thickness
32 sf/gal - 50 mils wet film thickness	53 sf/gal - 30 mils wet film thickness

NOTE: Coverage rates provided are optimal and are not guaranteed - coverage rates will vary depending on temperature, surface roughness and porosity, aggregate selection and embedment, and application technique.

Ambient Air Temperature

41 °F (5 °C) min. / 95 °F (35 °C) max

Relative Air Humidity

85 % R.H. max.

Dew Point

Beware of condensation. The substrate and uncured coating must be ≥ 5 °F (3 °C) above dew point.

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 Sikalastic® Primer before continuing.
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®-325 R 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
- Do not apply cementitious products, such as tile mortar directly onto Sikalastic®-325 R Lo-VOC.
- 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® waterproofing 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® waterproofingsystems without additional deck evaluation and subsequent approval by Technical Services
- Do not subject to continuous immersion, i.e., fountains, ponds, pools, or interior of tank.
- Not recommended for use over ceramic tile
- Mockups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommended.

ENVIRONMENTAL, HEALTH AND SAFETY

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, andexisting liquid applied membranes.

Concrete and Cementitious Substrates

New concrete shall be allowed to cure a minimum of 28 days. Concrete shall have a minimum compressive strength of 20.7 MPa (3000 psi) and exhibit a minimum tensile bond strength of 1.4 MPa (200 psi). Moist or sheet curing methods should be used, as opposed to the use of curing compounds, which may interfere with the bond of the membrane. Inspect the concrete, including upstands. All areas should be hammer or chain drag tested. Concrete must be suitably finished, preferably by wood float or steel pan. A power float finish is acceptable where the surface is prepared to avoid laitance (a tamped finish is not acceptable). The surface finish must be uniform and free from defects such as laitance, voids or honeycombing.

Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface (CSP 2-4 per ICRI guidelines). Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. The amount of embedment coat required may increase over rough or highly porous surfaces.

Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out. Consult Sika for product recommendations based on project requirements. High spots must be removed by grinding or similar method. Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in liquid applied materials. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any waterproofing work. Particular requirements for priming must also be considered. Installing the primer and membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial to apply the primer and embedment coat in the late afternoon or evening.

Gypsum and Cement Based Sheathing

Sheathing boards shall be clean, dry,dust free, and shall be properly secured to the structure. Secure loose boards if in sound condition. Damaged or contaminated boards shall be removed and replaced.

Brick and Stone

Mortar joints must be sound and preferably flush pointed. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required.

Asphalt

Asphalt contains volatiles which can cause bleeding and slight non-detrimental staining. The asphalt must be carefully assessed for moisture and/or air entrapment, grade and surface finish. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required. All major cracks should be sealed to allow continuity of the Sikalastic® RoofPro system.

Bituminous Felt

Ensure that bituminous felt is firmly adhered or mechanically fixed to the substrate. Bituminous felt shall not contain badly degraded areas. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required. Treat blisters by star cutting and

removing any underlying water. Allow to dry and re-adhere using suitable adhesive.

Bituminous Coatings
Bituminous coatings should not be sticky or mobile. Volatile mastic coatings, or old coal tar coatings are not acceptible. Remove any loose or degraded coatings.

Metals
Metals must be in sound condition. Ferrous metals should be thoroughly cleaned by grinding or blast cleaning prior to priming (SSPC-SP3 to SP11 near-white metal). Non-ferrous metals are prepared by removing any deposits of dust and oxidation and abrading to bright metal. Wire brushing can be used for soft metal such as lead. The surface must be clean and free from grease which, if present, must be removed with a solvent wipe or wash with detergent, rinse and dry. Stainless Steel must be mechanically abraded or ground to create an appropriate anchor profile.

Wooden Substrates
Plywood and timber based decks must be in good condition, firmly adhered or mechanically fixed. All plywood should be identified as conforming to PS 1 for construction and industrial plywood by grade, APA (American Plywood Association) trademark, or equivalent. For maximum smoothness, EXT Type APA, Grade A-C should be used, and the “A” side should be positioned to receive the Sikalastic® resin. Plywood decks to receive resin directly shall be at least 1/2'' thick and attached and supported according to APA guidelines, using only non-rusting screw, spiral or coated nail type fasteners. A good practice would be to recess or counter sink fasteners 1/8 to 1/4'' and fill with Sikaflex® sealant. Suitable edge support to prevent differential deflection between panels shall be provided. Panel edges shall be tongue and groove or supported on solid blocking. Space panels 1/8 to 3/16'' at panel ends. Timber and timber based decks require additional reinforcement such as the installation of plywood, approved insulation or cover board. Small timber protrusions and suitable decks may be treated directly, provided that the timber is of exterior quality, i.e. plywood. Fill joints flush with Sikaflex® sealant.

Paints and Coatings
Ensure the existing material is sound and firmly adhered. Remove any loose or degraded coatings. Ensure the surface is clean and free from oxidation, dust, dirt, and debris. Power wash and use biodegradeable non-sudsing detergent with clean water rinse as required.

Existing PU Coating System
The existing PU Coating shall be soundly adhered to the substrate. Clean the membrane using a pressure washer at approximately 140bar (2000 psi) and biodegradeable non-sudsing detergent with clean water rinse. Allow to dry.

Primer
Primer is recquired for all applications of Sikalastic®-325 R Lo-VOC. Apply primer of a type suitable for the substrate. Allow primer to cure completely before applying Sikalastic®-325 R Lo-VOC resin.

Primer Selection:

Sikalastic® Primer- For concrete decks with a maximum moisture content of 4 % by weight and exisiting polyurethane coatings, apply Sikalastic® Primer with a flat squeegee or phenolic resin core roller at approximately 250 - 300 sf/gal. and work well into the substrate to ensure adequate penetration and sealing, and puddles are avoided. Sikalastic® Primer is not suitable for metal substrates. Refer to separate primer data sheet for additional information.

Sikalastic® EP Primer/Sealer- For Wood (timber, plywood) and Metal (aluminum, galvanized, cast iron, copper, lead, brass, stainless steel, steel, zinc). Apply by brush or phenolic resin core roller at the recommended rate,100-250 sf/gal depending on the substrate. Correct amount of primer will saturate the substrate and leave a slight film on the substrate top surface. Apply evenly without puddling. Refer to separate primer data sheet for additional information.

MIXING

No mixing necessary.

APPLICATION

Detailing

Non-structural Cracks Up To 1/16''
Detail application not necessary. Apply embedment/base resin layer per below. Non-structural cracks between 1/16'' and 1/4''. Rout and seal with Sikaflex® sealant. Apply 40–45 mil resin layer embedded with 3'' Sika Flexitape Heavy or use Sika® Joint Tape SA centered over the crack. Apply embedment/base resin layer per instruction.

Cracks and Joints Between 1/4" and 1"
Rout and seal with Sikaflex® sealant. Apply bond breaker tape sufficient to span width of crack or joint followed by 40-45 mil resin layer embedded with 6'' Sika® Flexitape Heavyor use Sika® Joint Tape SA centered over crack or joint. Apply embedment/base resin layer by terminating Sika® Reemat or Sika® Fleece at edges of crack or joint overlapping Sika® Flexitape Heavy or Sika® Joint Tape SA, a minimum of 2 inches on both sides of the crack or joint.

Joints Greater Than 1''
Treat as expansion joint. Consult Sika for recommendations.

Metal Seams and Plywood/Cover Board Joints
Apply 40–45 mil resin layer embedded with 3 or 6'' Sika® Flexitape Heavy centered over seam. Alternativly Sika® Joint Tape SA can be applied centered over seam. Apply embedment resin layer per instruction.

Transitions Between Dissimilar Materials
Apply 40–45 mil resin layer embedded with Sika® Flexitape Heavy or use Sika® Joint Tape SA centered over transitions or dissimilar materials. Apply embedment resin layer per instruction.

Embedment/Base Resin Layer With Sika® Reemat Reinforcement
Mixing not required. Apply Sikalastic®-325 R Lo-VOC at the recommended coverage rate using a 1/2'' nap phenolic resin core roller. Material can also be squeegee or spray applied, in which case it should be backrolled prior to embedding Sika® Reemat. Place Sika® Reemat in wet base resin layer overlapping seams a minimum of 2'' (place frayed edge over cut edge of roll) and apply wet roller to topside to saturate completely. After approximately 5 minutes the binder will begin to dissolve allowing the fiber strands to conform to irregular surfaces. Do not over work once the fibers have conformed to the substrate. Allow to cure 12 hours at 70 °F and 50 % R.H. or until tack free before top resin layer. Keep clean and dry and apply top resin layer within 7 days. If window is exceeded clean with non-sudsing detergent and clean water rinse, and allow to dry prior to application of Sikalastic® Primer.

Top Resin Layer With Sika® Reemat Reinforcement
Mixing not required. Apply Sikalastic®-325 R Lo-VOC at the recommended coverage rate with a 1/2'' nap phenolic resin core roller. Material can also be squeegee or spray applied, in which case it should also be backrolled. Allow the first top resin layer to cure 12 hours at 70 °F and 50 % R.H. or until tack free before applying second top resin layer. On top of the complete Sikalastic®-325 R Lo-VOC system additional resin layers may be applied with aggregate for slip resistance. Keep clean and dry and apply additional resin layers within 7 days. If window is exceeded clean with non-sudsing detergent and clean water rinse, and allow to dry prior to application of Sikalastic® Primer before proceeding.

Wet On Wet Application With Sika® Fleece Reinforcement
Mixing not required. To primed substrate apply two-thirds of the Sikalastic®-325 R Lo-VOC specified with a 1/2'' nap phenolic resin core roller. Immediately place specified Sika® Fleece into wet resin overlapping seams a minimum of 3” along the edge and 6” end-to-end. Apply wet roller to topside with light pressure to saturate fleece from bottom and ensure air pockets are completely removed. Immediately apply all of remaining one-third of Sikalastic®-325 R Lo-VOC resin specified. Ensure there is an even and complete fleece saturation from the topside.

Aggregated Surfacing
Supplemental aggregate surfacing is required for all applications that will experience direct foot traffic such as balconies, terraces, walkways, and plazas. It is also recommended for areas that experience maintenance foot traffic. The aggregate surfacing is applied in a supplemental resin layer after the Sikalastic membrane has been installed. Aggregate is not applied into the waterproofing resin.

Seed and Back Roll Option
The Seed and Backroll option is primarily intended for use for maintenance traffic-type applications where enhanced slip resistance is required. Apply Sikalastic®-325 R Lo-VOC resin at 15 mils wet film thickness to the installed, cured membrane system. While the supplemental resin application is still wet seed with kiln dried, iron free aggregate. Back roll the surface to encapsulate the aggregate in the Sikalastic resin.

Full Broadcast and Seal Option
The Full Broadcast and Seal option is intended for use for applications where both enhanced slip resistance and physical protection of the membrane is required.

Apply Sikalastic®-325 R Lo-VOC resin at 15 mils wet film thickness to the installed, cured membrane system. While the supplemental resin application is still wet broadcast to rejection (full broadcast/beach) with kiln dried, iron free aggregate. Remove excess aggregate after cure. Seal with an additional coat of Sikalastic resin.

Aggregate Selection

Use clean, rounded or semiangular, oven dried quartz sand with a minimum hardness of 6.5 per the Moh's scale. It should be supplied in prepackaged bags and free of metallic or other impurities. The following size gradations are recommended:

- 16–30 or 20–40 mesh for pedestrian traffic systems

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.

CLEANING

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**

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