BUILDING TRUST

SYSTEM DATA SHEET

Sikalastic®-644 Lo-VOC Waterproofing System

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

PRODUCT DESCRIPTION

Sikalastic®-644 Lo-VOC Waterproofing System combine a cold applied, low odor, aliphatic, single component, alkali resistant, moisture-triggered polyurethane resin with fiberglass mat or polyester fleece reinforcement to create a seamless membrane and flashing system. Typical applications include a separate wearing course (overlayment or overburden). Sikalastic®-644-Lo-VOC is UV resistant without protection board and is also suitable for direct exposed waterproofing or roofing applications.

USES

Sikalastic®-644 Lo-VOC Waterproofing System may only be used by experienced professionals.

- Sikalastic® waterproofing systems, including Sikalastic® Plaza Deck/PMA, Foundation Wall, and Vegetated systems for both new construction and refurbishment
- Split-slab waterproofing
- Vegetated deck waterproofing
- Plaza decks with concrete pavers, and asphalt or concrete paving stones in a sand bed
- Waterproofing under tile in a mortar bed
- Applications involving cementitious and asphalt pavement overlays
- Waterproofing around/beneath mechanical equipment

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
- Florida Building Code

PRODUCT INFORMATION

Packaging	5-gal. (19L) pail 50-gal. (189.271 L) drum
Shelf Life	15 months, 5-gal pail 6 months, 50-gal drum
Storage Conditions	Store dry between 35º and 77ºF (2-25º C). Condition material to 50º-77º F (10-25º C) before using for ease of application.

TECHNICAL INFORMATION

Resistance to Static Puncture (ASTM D-5602)

Sikalastic® RoofPro 20 with Sika® Reemat Premium	Sikalastic® RoofPro 20 with Sika® Fleece 140
> 55 lbf	> 55 lbf

Note: Data for other RoofPro assemblies available upon request

Tensile Strength (ASTM D-751 Proc. B)

Sikalastic® RoofPro 20 with Sika® Reemat Premium	Sikalastic® RoofPro 20 with Sika® Fleece 140
1030 psi	900 psi

Note: Data for other RoofPro assemblies available upon request

Elongation at Break (ASTM D-751)

Sikalastic® RoofPro 20 with Sika® Reemat Premium	Sikalastic® RoofPro 20 with Sika® Fleece 140
21 %	82 %

Note: Data for other RoofPro assemblies available upon request

Tear Strength (ASTM D-624)

Sikalastic® RoofPro 20 with Sika® Reemat Premium	Sikalastic® RoofPro 20 with Sika® Fleece 140
300 lbf/in	200 lbf/in

Note: Data for other RoofPro assemblies available upon request

Solar Reflectance	CRRC Rapid Rating 0.73 CRRC Rapid Raiting 0.33	(White) (Standard Gray)
Thermal Emittance	CRRC Rapid Rating 0.91 CRRC Rapid Raiting 0.92	(White) (Standard Gray)
Service Temperature	-22–176 °F (-30–80 °C) intermittent	

SYSTEM INFORMATION

System Structure

Sikalastic® RoofPro-644 Lo-VOC System Guide with Sika® Reemat Premium

	RoofPro 15*	RoofPro 20*	RoofPro 25*
1. Primer	See Priming Guide	See Priming Guide	See Priming Guide
2. Base Layer: Sikalastic®-644-Lo-VOC	45 mils wet 35 sf/gal.	45 mils wet 35 sf/gal.	45 mils wet 35 sf/gal.
3. Reinforcement:	Sika® Reemat Premium	Sika® Reemat Premium	Sika® Reemat Premium
4. Top Layer: Sikalastic®-644-Lo-VOC	25 mils wet 64 sf/gal.	30 mils wet 53 sf/gal.	25 mils wet 64 sf/gal.
5. Top Layer: Sikalastic®-644-Lo-VOC	-	-	25 mils wet 64 sf/gal.

Sikalastic® RoofPro-644 Lo-VOC System Guide with Sika® Fleece

	RoofPro 15*	RoofPro 20*	RoofPro 25*
1. Primer	See Priming Guide	See Priming Guide	See Priming Guide
2. Base Layer: Sikalastic®-644-Lo-VOC	45 mils wet 35 sf/gal.	50 mils wet 32 sf/gal.	60 mils wet 27 sf/gal.
3. Reinforcement:	Sika® Fleece 120 (US)	Sika® Fleece 140 (US)	Sika® Fleece 170 (US)
4. Top Layer: Sikalastic®-644-Lo-VOC	25 mils wet 64 sf/gal.	25 mils wet 64 sf/gal.	35 mils wet 45 sf/gal.

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

Note: Coverage rates provided are optimal and are not guaranteed they will vary depending on temperature, surface roughness, porosity, aggregate selection, embedment, and application technique. For example, using Sikalastic®-644 Lo-VOC Waterproofing System with Sika® Fleece 140 in a RoofPro 20 build up, a potential full system coverage rate for a mod-bit surface could be 14 - 16 sf/gal.. Sikalastic®-644 Lo-VOC Waterproofing System with Sika Reemat Premium in a RoofPro 15, 20 & 25 build up, a potential base coat coverage rate could be 25 - 28 sf/gal.

Composition

Single component, moisture-triggered, aliphatic polyurethane

Color

White, Standard Gray; custom colors available with minimum order quantitiy

Dry film thickness

Sikalastic® RoofPro-644 Lo-VOC System Guide with Sika® Reemat

RoofPro 15	RoofPro 20	RoofPro 25
56 mils dry	60 mils dry	76 mils dry

Sikalastic® RoofPro-644 Lo-VOC System Guide with Sika® Fleece

RoofPro 15	RoofPro 20	RoofPro 25
56 mils dry	60 mils dry	76 mils dry

APPLICATION INFORMATION

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.

Substrate Moisture Content

≤ 4 % moisture content Test method: Sika®-Tramex meter
No rising moisture according to ASTM (Polyethylene-sheet)

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 7days surface must be cleaned and primed with Sika® Concrete Primer Lo-VOC or 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 Pre-Treatment
Refer to Priming Guide to select primer for properly evaluated and prepared substrate. Refer to separate primer Product Data Sheet for application methods, coverage rates, cure times and recoat windows. Always allow primer to cure thoroughly before applying detail or base resin layer.

Sikalastic® RoofPro-641 Lo-VOC Priming Guide

Substrates and Primer Options
Concrete *1
Sikalastic® Concrete Primer Lo-VOC
Sikalastic® DTE Primer
Sikalastic® GDC Primer
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid

Lightweight Structural Concrete *1
Sikalastic® Concrete Primer Lo-VOC
Sikalastic® DTE Primer
Sikalastic® GDC Primer
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Cement, Gypsum Based Roof Boards
Sikalastic® Concrete Primer Lo-VOC
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Brick, Stone *3
Sikalastic® Concrete Primer Lo-VOC
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Bituminous Substrate
Asphalt, Bituminous Felts, Bituminous Coatings, Granulated or Smooth
SBS & Aged APP Cap Sheets *2,3
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Single Ply PVC Membranes *3
Sarnafil, Sikaplan *3
Sikalastic® EP Primer/Sealer
Hypalon *3
Sika® Bonding Primer
TPO, EPDM *3
Sikalastic® EPDM Primer
Sikalastic® EPDM / TPO Primer Lo-VOC
Roof Tiles (unglazed) *3,4
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Fiberglass *3
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Polyurethane Foam - Sprayed or Slab Stock
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Metal *3
Aluminium, Galvanized, Cast Iron, Copper, Lead, Brass, Stainless Steel, Steel, Zinc
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Pre-Coated Metal *3
Paints & Coatings *3
Aluminized Solar Reflective Coatings *3
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
Wood - Timber & Plywood *5
Sikalastic® EP Primer/Sealer
Sikalastic® EP Primer Rapid
*** Consult Sika.**
1 New cementitious substrates must be Portland base and be cured min. 28 days.
2 The presence of volatile bitumen may cause discoloration of Sikalastic® if not properly primed.
3 Surface evaluation and field adhesion testing.
4 Glazed tile consult Sika.
5 Pressure treated lumber consult Sika.

SUBSTRATE PREPARATION

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). time. 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, and 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 roofing 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, therefore, to apply the primer and embedment coat in the late afternoon or evening.

Gypsum and Cement Based Sheathing
Sheathing boards shall be clean, dry and 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 roof decks must be in good condition, firmly adhered and 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 roof 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, e.g. 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 biodegradable non-sudsing detergent with clean water rinse as required. Allow to dry.

Existing Sikalastic® RoofPro System
The existing Sikalastic® RoofPro System 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.

Sikaplan®/Sarnafil® Membranes
Clean the membrane using a pressure washer at approximately 140bar (2000 psi) and biodegradeable non-sudsing detergent with clean water rinse or use approved PVC membrane cleaner. Allow to dry.

MIXING

No mixing necessary for Resins.

PRIMER MIXING
Refer to the individual primer Product Data Sheets for proper mixing instruction.

APPLICATION

Detailing

Non-structural Cracks Up To 1/16''
Detail application not necessary. Apply embedment/base resin layer per instruction. 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 sealwith 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 Heavy or 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 below.

Transitions Between Dissimilar Materials
Apply 40-45 mil resin layer embedded with Sika® Flexitape Heavy or use Sika® Joint Tape SA centered over edge. Apply embedment/base resin layer per instruction.

Embedment/Base Resin Layer with Sika® Reemat Reinforcement
Mixing not required. Apply Sikalastic®-644 Lo-VOC at the coverage rate listed in the RoofPro System Guide with 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 Sika® Concrete Primer Lo-VOC or Sika® Reactivation Primer.

Top Resin Layer with Sika® Reemat Reinforcement
Mixing not required. Apply Sikalastic®-644 Lo-VOC at the coverage rate listed in the RoofPro System Guide 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. In the case of RoofPro 25 allow the first top resin layer to cure 12 hours at 70 degrees F and 50 % R.H. or until tack free before applying second top resin layer. On top of the complete RoofPro 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 Sika® Concrete Primer Lo-VOC or Sika® Reactivation Primer.

Wet on Wet Application with Sika® Fleece Reinforcement
Mixing not required. To primed substrate apply two-thirds of the Sikalastic®-644 Lo-VOC specified in the RoofPro System Guide 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®-644 Lo-VOC resin specified in the RoofPro System Guide. Ensure even and complete fleece saturation from 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 top layer of the roofing/waterproofing membrane 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®-644 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 roofing membrane is required. Apply Sikalastic®- 644 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

Overburden Application
Sikalastic®-644 Lo-VOC is used as the waterproofing layer under a wide range of overburden materials. Depending on the overburden type, different surfacing, drainage, and protection layers may be required.

Protected Membrane Assemblies
Install Sika drainage mat over the Sikalastic®-644 Lo-VOC waterproofing system prior to adding the extruded polystyrene insulation layer. No aggregated membrane surfacing is required.

Concrete Pavers with Pedestal Supports
Install Sika drainage mat over the Sikalastic®-644 Lo-VOC waterproofing system to provide additional protection of the membrane under the pedestal supports.

Tile Adhered in a Cementitious Thin-Set Adhesive
A full aggregate broadcast surfacing is required to provide an adhesion key for the tile adhesive. Apply a supplemental 15 wet mils of Sikalastic®-644 Lo-VOC waterproofing resin, followed by a full broadcast of 16-30 or 12-20 kiln-dried sand to refusal, typically 40-50 lbs./100 sf. Remove all loose sand once resin has cured. Do not seal the aggregated surface.

Tile in a Cementitious Setting Bed
Install Sika drainage mat over the Sikalastic®-644 Lo-VOC waterproofing system prior to installation of the cementitious setting bed, which is typically 1-1/2"-3" in thickness, and can be sloped to create positive drainage. Secure the Sika drainage mat by spot-adhering with Sikaflex® 11 FC to the Sikalastic®-644 Lo-VOC waterproofing system as required to prevent shifting during setting bed installation. Bi-level drains should be installed to provide drainage capability at the membrane level as well as drainage of the finished surface.

Concrete/Asphalt Pavers in a Sand Setting Bed
Install Sika drainage mat over the Sikalastic®-644 Lo-VOC waterproofing system prior to installing the sand setting bed, which is typically either graded silica sand or a mix of sand and asphalt. Secure the Sika drainage mat by spot-adhering with Sikaflex® 11 FC to the Sikalastic®-644 Lo-VOC waterproofing system as required to prevent shifting during setting bed installation. Bi-level drains should be installed to provide drainage capability at the membrane level as well as drainage of the finished surface.

Vegetation and Growing Media/Soil
The selection of a vegetated overburden assembly is specified by a qualified design professional. At a minimum, install Sika® GRS Drain Mat over the Sikalastic®-644 Lo-VOC waterproofing system prior to application of all other overburden components. Secure the Sika® GRS Drain Mat to the Sikalastic®-644 Lo-VOC waterproofing system by spot-adhering with Sikaflex® 11 FC as required to prevent shifting during vegetative overburden assembly components . Bi-level drains should be installed to provide drainage capability at the membrane level as well as drainage at grade level.

Concrete Pavement
Install Sika® 1000 Drain Mat over the Sikalastic®-644 Lo-VOC waterproofing system prior to application of the new concrete. Secure the Sika® 1000 Drain Mat to the Sikalastic®-644 Lo-VOC waterproofing system by spot-adhering with Sikaflex® 11 FC as required to prevent shifting during concrete placement. Bi-level drains should be installed to provide drainage capability at the membrane level as well as drainage of the finished surface.

Asphalt Pavement
Install Sika® 1000 Drain Mat over the Sikalastic®-644 Lo-VOC waterproofing system, followed by the installation of a ¼" thick asphalt protection board. Secure the Sika® 1000 Drain Mat and asphalt protection board as required to prevent shifting during asphalt pavement placement. Bi-level drains should be installed to provide drainage capability at the membrane level as well as drainage of the finished surface.

CLEANING OF TOOLS

Clean tools and application equipment with appropriate solvent immediately after use. Hardened and/or cured material is 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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