ROOFING
SIKALASTIC® ROOFPRO

JOB-SITE APPLICATOR MANUAL
LIQUID APPLIED ROOFING/WATERPROOFING SYSTEMS

Effective May 1, 2024

BUILDING TRUST

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SIKALASTIC ROOFPRO WARRANTY PROGRAM

CONTRACTOR TRAINING

The Sikalastic RoofPro Warranty Program begins with contractor training. Only Sikalastic RoofPro Approved Applicators may apply for project warranties that include workmanship in the warranty coverage. Contractor training is provided by Sika Technical Field Representatives only. Introductory training is often provided in an office, shop, or warehouse setting; in-depth hands-on training is nearly always provided on-site on a RoofPro project. Successful hands-on training is a requirement for a company to become a Sikalastic RoofPro Applicator.

Go to USA.SIKA.COM under Construction/Roofing/Liquid Applied Roofing/Resource Center/Learn More/ Warranty Information(Liquid Applied), to obtain an Approved Applicator Application and Approved Applicator Agreement.

PROJECT REGISTRATION

All Sikalastic RoofPro projects requiring a Sikalastic warranty must first be registered with, and approved by Sika Technical Services prior to job start. Projects not registered in this manner will be eligible for a 1-year Sika Material Only warranty.

Go to USA.SIKA.COM under Construction/Roofing/Liquid Applied Roofing/Resource Center/Learn More/ Warranty Information(Liquid Applied), to obtain RoofPro Warranty Registration Form.

SITE INSPECTIONS

All Sikalastic RoofPro projects requiring a Sikalastic Single Source warranty will receive a minimum of two inspections: a Job Start/Initial Inspection, and a Completion/Final Inspection. Depending on the complexity of the project, additional inspections may be required. Sikalastic Material or Limited Labor and Material warranties only receive site inspections as required. Responsible inspectors are Sika Technical Field Representatives.

WARRANTY ISSUANCE

The responsible Sika Technical Field Representative will sign off on the RoofPro Warranty Registration Form once all installation requirements are satisfied and the project is deemed ready for warranty. The Field Tech submits the signed form to Sika for warranty issuance. Electronic versions of the executed warranty are distributed through email.

WARRANTY CLAIMS

For any warranty claims that are believed to be caused by Sikalastic RoofPro material failure, or by workmanship failure for those warranties that include workmanship in the coverage, contact the Roofing Warranty Department (1-800-451-2504) as required by the Terms and Conditions of the Warranty. Upon receiving the claim, the Warranty Department will dispatch a Technical Field Representative to investigate and evaluate the site condition. The investigation report will be submitted to Sika Management and Warranty Department.

Repairs and conditions not covered under warranty are not the responsibility of Sika Corporation. Repair and/or replacement must be performed in a timely manner for the Sikalastic RoofPro warranty to remain in effect.

SYSTEM DESCRIPTION

Sikalastic RoofPro Systems

The roofing and waterproofing systems are cold applied, aliphatic, single component, moisture-triggered polyurethane resins that are combined with fiberglass mat or polyester fleece reinforcement, to create a completely **seamless roofing or waterproofing membrane. The RoofPro system does not require heat or open flame on the roof for installation. (**Fleece reinforcement will show lap seams)

The RoofPro products incorporate, I-Cure®, MTC® (Moisture-Triggered Chemistry), a unique technology that allows the material to use atmospheric moisture to trigger the curing process. The waterproofing membranes are capable of curing in a wide range of conditions including extreme temperature ranges and humidity variations.

Substrates are waterproofed shortly after application, providing protection against sudden rainstorms and adverse weather conditions.

Due to its unique moisture-triggered chemistry, Sikalastic® RoofPro systems offer installation advantages that other liquid-applied systems cannot match:

- Sikalastic RoofPro systems do not release CO2 during the curing process, which can cause outgassing and bubbling
- They are more applicator-friendly in temperature extremes, particularly in hot weather and are not moisture sensitive
- Our systems are UV-resistant and do not require an added protection layer

TYPLICAL USES

Roofing

- Built-Up Insulated Roofing – Reflective, energy-efficient application direct to cover board over polyisocyanurate foam insulation
- Direct-to-Substrate Roofing – Robust application direct to structural concrete and wood decks
- Protected Membrane Roofing – Seamless, self-flashing installation under extruded polystyrene insulation with overburden
- Recover Roofing – Direct application to most existing roofing and waterproofing systems such as, asphaltic, modified bitumen, single-ply membranes, etc., adding minimal additional weight of less than 1 psf

Waterproofing

- Plaza Deck Waterproofing – Seamless, self-flashing waterproofing under tile, concrete pavers, paving stones, concrete, bricks, asphalt, etc.
- Balcony and Terrace Waterproofing – Alkaline-resistant waterproofing under tile, pavers, wood decking, etc.
- Decorative options with integral decorative aggregate or vinyl flaked surfacing (621 TC or 624 WP only)
- Vegetated Roofing – Root and rot resistant waterproofing under growing media, planters, and hardscapes

Restoration

- Decorative Elements – Preserve and protect water tables, ledges, eyebrows, cornices, built-in gutters, dormers, domes, etc.
- Metal Roofing – Retain profile of standing seam, batten, and flat seam roofing, seal overlap joints, penetrations, valleys, and other problematic areas

TYPLICAL USES - Continued

Repair

- Existing Flashings – Replace deteriorated wall flashings, base flashings, penetration flashings, pitch pans, expansion joints, etc.
- Unique Conditions – Through-wall flashings, metal roof joints, lintel protection, stairs, walkways, planters, tree pits, gutters, etc.

CHARACTERISTICS / ADVANTAGES

- Proven technology for over 37+ years
- Single component - no mixing and ready to use
- Fully reinforced with highly conformable Sika Reemat or Sika Fleece
- Alkaline resistant formulation available - suitable for under overburden applications
- Moisture triggered chemistry that is rapidly weatherproof 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 with suitable primer

REFERENCES

To ensure the correct application of Sikalastic® RoofPro systems, please refer to the most recent issue of the following documents:

- PDS (Product Data Sheet)
- SysDS (System Data Sheet)
- SDS (Safety Data Sheet)

TYPICAL DESIGN REQUIREMENTS

It is the responsibility of the project designer and/or building owner to be knowledgeable about the building code requirements that will affect the design of the roofing system and to make these requirements known prior to installation.

- Fire resistance (Class A, B, C)
- Wind uplift resistance (High Velocity Wind Zones)
- Hail resistance
- Thermal performance (R-value)
- Slope to drain requirements
- Solar reflectance index based upon reflectivity and emissivity
- Rooftop drainage retention
- Vegetated roofing
- Vapor barrier
- Air barrier continuity requirements

TESTING APPROVALS

It is the responsibility of the project designer and/or building owner to be knowledgeable about the building code requirements that will affect the design of the roofing system and to make these requirements known prior to installation.

- FM - Factory Mutual - Approval Standard 4470 for Class 1 Roof Covers
- MD - Miami Dade
- ASTM Standards
- CRRC
- ICC
- UL
- FBC **-** Florida Building Code
- EPD -Environmental Product Declaration

PRODUCTS

SIKALASTIC® ROOFPRO SATURATING RESINS

Sikalastic®-621 TC
Sikalastic®- 621 TC is a single-component moisture-triggered polyurethane saturating resin.
It is the base and top resin layers when using Reemat or non-woven polyester fleece.
Packaging - 5 gal pail
Colors - White- Pearl Gray- Steel Gray - Mushroom (made to order) - Custom Colors (made to order)

Sikalastic®-624 WP
Sikalastic®-624 WP is a single-component moisture-triggered alkaline-resistant polyurethane saturating resin.
It is the base and top resin layers when using Reemat or non-woven polyester fleece. The alkaline resistant formula allows for thin set/tile or cementitious overburden.
Packaging - 5 gal pail
Colors - White- Pearl Gray - Custom Colors (made to order)

Sikalastic®-641 Lo-VOC
Sikalastic®-641 Lo-VOC is a single-component moisture-triggered, low VOC and low odor polyurethane saturating resin.
It is the base and top resin layers when using Reemat or non-woven polyester fleece. The low odor, LoVOC formulation allows for use where sensitive application conditions exist, such as schools, hospitals, residences, etc.
Packaging - 5 gal pail, 50-gal Drum (made to order)
Colors - White - Pearl Gray - Steel Gray - Mushroom - Standard Gray - Copper Green - Custom Colors (made to order)

Sikalastic®-644 Lo-VOC
Sikalastic®-644 Lo-VOC is a single-component moisture-triggered, low VOC and low odor polyurethane saturating resin.
It is the base and top resin layers when using Reemat or non-woven polyester fleece. The alkaline resistant and Lo-VOC formulation allows for thin set/tile or cementitious overburden in areas where sensitive application conditions exist, such as schools, hospitals, residences, etc.
Packaging - 5 gal pail - 50 gal drum
Colors - White - Standard Gray - Pearl Grey (made to order) - Custom Colors (made to order)

PRODUCTS - Continued

SKYLIGHT RESTORATION

Sikalastic®-Clearglaze
Sikalastic® Clearglaze is a clear, single component, high solids, moisture triggered technology,polycarbonate aliphatic polyurethane based coating for waterproofing and restoration system applications on skylights
Packaging - 1.32 gal pail

REINFORCEMENTS

Sika® Reemat Premium
Reemat Premium is a surface treated randomly oriented glass fiber reinforcement. Used for 10, 15, 20, and 25 yr. warranties with resins 621 TC, 624 WP, 641 Lo-VOC, and 644 Lo-VOC.
Packaging - 49"x295' roll - 12" detail 12"x295' roll

Sika® 120 Fleece
120 Fleece is a non-woven needle-punched polyester fleece reinforcement.
Used for 15-year warranties with resins 621 TC, 624 WP, 641 Lo-VOC, and 644 Lo-VOC.
Packaging - Fleece 120 48"x 300' roll

Sika® 140 Fleece
140 Fleece is a non-woven needle-punched polyester fleece reinforcement.
Used for 15 and 20-year warranties with resins 621 TC, 624 WP, 641 Lo-VOC, and 644 Lo-VOC.
Packaging - Fleece 140 48"x 300' roll , 16" detail 16"x 300' roll

Sika® 170 Fleece
170 Fleece is a non-woven needle-punched polyester fleece reinforcement.
Used for 15, 20, and 25-year warranties with resins, 621 TC, 624 WP, 641 Lo-VOC, and 644 Lo-VOC.
Packaging - Fleece 170 48"x 300' roll

Sikalastic® Flexitape Heavy
Flexitape Heavy is a 3" or 6" double knit polyester mesh.
The tape is saturated in the base resin layer for reinforced enhancement over cracks, at all changes of plane, and angles.
Packaging - 3"x 300' roll, 6"x 300' roll

Sika® Joint Tape SA
Joint Tape SA is a 3" or 6" self-adhering polymeric rubberized tape with a woven polyester facer.
The tape is used for reinforced enhancement at joints and angle changes.
Packaging - 3"x 50' roll, 6"x 50' roll

PRODUCTS - Continued

PRIMERS

Sika® Concrete Primer Lo-VOC
Concrete Primer Lo-VOC is a cold applied, single component, low-odor moisture-curing polyurethane.
Seal cementitious substrates to reduce the incidence of outgassing and use on cover boards to enhance the adhesion of Sikalastic® RoofPro Systems. **NOTE: for use as a reactivation primer for resins 641, 644, 646 only**
Packaging – 5-gal pail

Sika® Bonding Primer
Bonding Primer is a two-component, water-based epoxy primer.
Consolidate friable substrates and enhance the adhesion of Sikalastic® RoofPro Systems.
Packaging – A/B, 1-gal kit

Sikalastic® EP Primer Rapid
EP Primer Rapid is a two-component solvent-based fast curing universal epoxy primer.
Suitable for use on most sound substrates where both penetrative and surface-lying effect is required. See PDS for approved substrates.
Packaging – A/B 1-gal Kit

Sikalastic® EP Primer/Sealer
EP Primer/Sealer is a two-component solvent-based epoxy primer.
A versatile primer for use on various substrates such as Metal, Asphalt, Concrete, Bituminous Felts, PVC Membrane, Coatings, etc. See PDS for approved substrates.
Packaging – A/B , 1-gal & 4-gal kits

Sikalastic® DTE Primer
DTE Primer is a two-component, damp tolerant epoxy primer.
Use on damp or green concrete with moisture content up to 6 %.
Packaging – A/B, 1-gal kit

Sikalastic® GDC Primer
GDC Primer is a two-component moisture mitigating epoxy primer.
Use on green, damp, and dry concrete surfaces.
Packaging – A/B, 4-gal kit

Sika® Reactivation Primer
Reactivation Primer is a single component, polyurethane based primer.
Use for the reactivation of existing Sikalastic 624 and 621 membranes prior to over coating, repairing, or modifying.
Packaging – 1-gal pail

Sikaflex® Primer-449
Primer-449 is a single component primer.
Use to improve the adhesion to PVC, ABS and plexiglass.
Packaging – 6, 1 pint cans in a carton

Sikalastic® Recoat Primer (may be used instead of Reactivation Primer)
Recoat Primer is a two component, high solids, liquid applied primer.
Use on partially completed new urethane coating systems and recover or repair of existing urethane coating systems.
Packaging – A/B, 4-gal & 10-gal kits

PRODUCTS - Continued

PRIMERS - Continued

Sikalasticc® EPDM/TPO Primer Lo-VOC
EPDM/TPO Primer Lo-VOC has been formulated with VOC exempt solvents.
Use in regulated markets where other solventborne primers can not be used.
Packaging – 3-gal pail

Sika® Joint Tape SA Primer
Joint Tape SA Primer is a single component synthetic polymer-based primer.
Use with Sika Joint Tape SA to enhance adhesion to dusty/oxidized/porous surfaces, and in cold weather application with temperatures of 20 °F (-6 °C) to 40 °F (5 °C).
Packaging – 1-gal can

Sikalastic® Conductive Primer
Sikalastic Conductive Primer is a two component epoxy resin (Part A) is mixed with conductive fibers and an activator (Part B). This primer allows for electric currents to go through potential voids in Sikalastic membranes and cna be grounded without the need for a conductive substrate. This enable dry, high voltage (min. 7.5kv) electronic leak detection testing.
Packaging - 2-gal kit (.77-gal. Part A, .23-gal. Part B) 2 A's in a box; 2 B's in a box

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SYSTEMS BUILD – UP

SIKALASTIC ROOFPRO SYSTEMS FOR METAL

Sikalastic RoofPro-621 System

Layers	**RoofPro 10**
1. Primer	See Priming Guide
2. Base Layer: -621	20 mils wet–80 sf/gal.
3. Top Layer: -621	20 mils wet–80 sf/gal.
Dry film thickness	**32 mils dry**

Sikalastic RoofPro-641 Lo-VOC System

Layers	**RoofPro 10**
1. Primer	See Priming Guide
2. Base Layer: -641 Lo-VOC	20 mils wet–80 sf/gal.
3. Top Layer: -641 Lo-VOC	20 mils wet–80 sf/gal.
Dry film thickness	**35 mils dry**

Detailing: Sika Flexitape Heavy or Sika Joint Tape SA centered over seams, transitions, joints, and properly treated cracks.

SYSTEMS BUILD – UP - Continued

SIKALASTIC ROOFPRO SYSTEMS WITH SIKA REEMAT

Sikalastic RoofPro-621 System with Sika® Reemat

Layers	RoofPro 10	RoofPro 15
1. Primer	See priming guide	See priming guide
2. Base layer: 621	35 mils wet; 45 sf/gal	45 mils wet; 35 sf/gal
3. Reinforcement	Reemat Premium	Reemat Premium
4. Top layer: 621	30 mils wet; 53 sf/gal	20 mils wet; 80 sf/gal
Dry film thickness	**51 mils dry**	**52 mils dry**

Sikalastic RoofPro-621 System with Sika® Reemat

Layers	RoofPro 20	RoofPro 25
1. Primer	See priming guide	See priming guide
2. Base layer: 621	45 mils wet; 35 sf/gal	45 mils wet; 35 sf/gal
3. Reinforcement	Reemat Premium	Reemat Premium
4. Top layer: 621	30 mils wet; 53 sf/gal	30 mils wet; 53 sf/gal
5. Top layer: 621	N/A	30 mils wet; 53 sf/gal
Dry film thickness	**61 mils dry**	**85 mils dry**

Sikalastic RoofPro-624 System with Sika® Reemat

Layers	RoofPro 15 WP	RoofPro 20 WP	RoofPro 25 WP
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 624	45 mils wet; 35 sf/gal	45 mils wet; 35 sf/gal	45 mils wet; 35 sf/gal
3. Reinforcement	Reemat Premium	Reemat Premium	Reemat Premium
4. Top layer: 624	30 mils wet; 53 sf/gal	40 mils wet; 40 sf/gal	30 mils wet; 53 sf/gal
5. Top layer: 624	N/A	N/A	30 mils wet; 53 sf/gal
Dry film thickness	**53 mils dry**	**60 mils dry**	**74 mils dry**

Sikalastic RoofPro-641 Lo-VOC System with Sika® Reemat

Layers	RoofPro 10	RoofPro 15	RoofPro 20	RoofPro 25
1. Primer	See priming guide	See priming guide	See priming guide	See priming guide
2. Base layer: 641	30 mils wet; 53 sf/gal	50 mils wet; 32 sf/gal	50 mils wet; 32 sf/gal	50 mils wet; 32 sf/gal
3. Reinforcement	Reemat Premium	Reemat Premium	Reemat Premium	Reemat Premium
4. Top layer: 641	30 mils wet; 53 sf/gal	20 mils wet; 80 sf/gal	30 mils wet; 53 sf/gal	23 mils wet; 69 sf/gal
5. Top layer: 641	N/A	N/A	N/A	23 mils wet; 69 sf/gal
Dry film thickness	**53 mils dry**	**62 mils dry**	**71 mils dry**	**85 mils dry**

SYSTEMS BUILD – UP - Continued

SIKALASTIC ROOFPRO SYSTEMS WITH SIKA REEMAT - Continued

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

Layers	RoofPro 15	RoofPro 20	RoofPro 25
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 644	45 mils wet; 35 sf/gal	45 mils wet; 35 sf/gal	45 mils wet; 35 sf/gal
3. Reinforcement	Reemat Premium	Reemat Premium	Reemat Premium
4. Top layer: 644	25 mils wet; 64 sf/gal	30 mils wet; 53 sf/gal	25 mils wet; 64 sf/gal
5. Top layer: 644	N/A	N/A	25 mils wet; 64 sf/gal
Dry film thickness	**56 mils dry**	**60 mils dry**	**76 mils dry**

SIKALASTIC ROOFPRO SYSTEMS WITH SIKA FLEECE

Sikalastic RoofPro-621 System with Sika® Fleece

Layers	RoofPro 15	RoofPro 20	RoofPro 25
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 621	45 mils wet; 35 sf/gal	50 mils wet; 32 sf/gal	60 mils wet; 26 sf/gal
3. Reinforcement	120 Fleece	140 Fleece	170 Fleece
4. Top layer: 621	30 mils wet; 53 sf/gal	35 mils wet; 45 sf/gal	40 mils wet; 40 sf/gal
Dry film thickness	**61 mils dry**	**69 mils dry**	**85 mils dry**

Sikalastic® RoofPro-624 System with Sika® Fleece

Layers	RoofPro 15 WP	RoofPro 20 WP	RoofPro 25 WP
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 624 WP	45 mils wet; 35 sf/gal	50 mils wet; 32 sf/gal	65 mils wet; 24 sf/gal
3. Reinforcement	120 Fleece	140 Fleece	170 Fleece
4. Top layer: 624 WP	25 mils wet; 64 sf/gal	35 mils wet; 45 sf/gal	40 mils wet; 40 sf/gal
Dry film thickness	**50 mils dry**	**60 mils dry**	**75 mils dry**

Sikalastic® RoofPro-641 Lo-VOC System with Sika® Fleece

Layers	RoofPro 15	RoofPro 20	RoofPro 25
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 641	45 mils wet; 35 sf/gal	50 mils wet; 32 sf/gal	66 mils wet; 24 sf/gal
3. Reinforcement	120 Fleece	140 Fleece	170 Fleece
4. Top layer: 641	25 mils wet; 64 sf/gal	30 mils wet; 53 sf/gal	34 mils wet; 47 sf/gal
Dry film thickness	**62 mils dry**	**71 mils dry**	**89 mils dry**

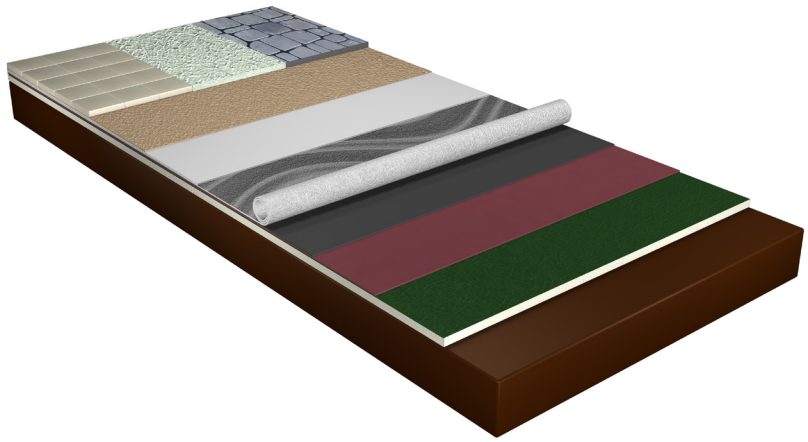
SYSTEMS BUILD – UP - Continued

SIKALASTIC ® ROOFPRO SYSTEMS WITH SIKA FLEECE - Continued

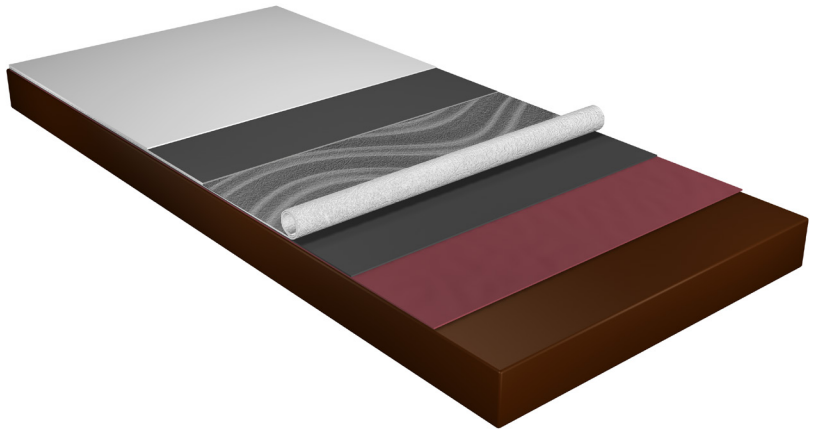
Sikalastic® RoofPro-644 Lo-VOC System with Sika® Fleece

Layers	RoofPro 15 WP	RoofPro 20 WP	RoofPro 25 WP
1. Primer	See priming guide	See priming guide	See priming guide
2. Base layer: 644	45 mils wet; 35 sf/gal	50 mils wet; 32 sf/gal	60 mils wet; 25 sf/gal
3. Reinforcement	120 Fleece	140 Fleece	170 Fleece
4. Top layer: 644	25 mils wet; 64 sf/gal	25 mils wet; 64 sf/gal	35 mils wet; 45 sf/gal
Dry film thickness	**56 mils dry**	**60 mils dry**	**76 mils dry**

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



4 Layer system
for 10, 15, 20-year warranties
with Reemat or Fleece
Or
25-year warranty with 170 Fleece only



5 Layer system
for 25-year warranties with Reemat

PRE-APPLICATION JOB SITE EVALUATION

Project Evaluation

The following checklist is a guide to some of the most important aspects to take into consideration.

- Construction and substrate are in good condition
- New concrete is cured for at least 28 days and has a minimum compressive strength of 3000 psi.
- Concrete moisture content is ≤ 4 %, Test method: Sika®-Tramex meter (Over 4 % use Sikalastic GDC Primer or DTE Primer)
- Check for air intakes in the area and make sure there is proper ventilation
- Precautions should be taken to prevent odors and/or vapors from entering the building/structure
- Necessary health and safety equipment e.g., scaffolding, ladder etc. are available on site
- Measurement of the project area
- Make a whole project plan. Availability of Sika field staff and Sika products. Include proper tools/equipment as well as the protective health and safety equipment
- Check weather conditions, system has weather restrictions
- Substrate Temperature: 41 °F min. / 140°F max.
- Ambient Temperature : 41 °F min. / 95 °F max.
- Relative Humidity: 85% max
- It is recommended to condition material to 50–77 °F before using for ease of application
- Dew Point – the air and substrate must be at least 5 °F above the dew point to reduce the risk of condensation

NOTE: Condensation will affect adhesion and could affect appearance

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Determination Of Dew Point

Dew point conditions will affect RoofPro applications. The application temperature, both air and substrate, must exceed the dew point by at least 5 °F.

Means To Determine Current Dew Point

- Digital Hygrometer
- Dew Point Chart
- Weather Apps with Infrared Thermometer

Example: Air temperature: 75 °F, Atmospheric humidity: 35 %, **Substrate temperature:** 80 °F
Determined dew point temperature : 45 °F add 5 °F = 50.0 °F
Verify: Is 80 °F greater than 60 °F? **Decision:** Installation is possible.

PRE-APPLICATION JOB SITE EVALUATION - Continued

Determination Of Substrate Moisture Content

The Substrate moisture content on concrete and other cementitious substrates shall not exceed 4 %, moisture content can be measure with Tramex meter (Moisture content over 4% use Sikalastic GDC Primer)

Theoretical Coverage Calculation

Liquid applied at a thickness of 1 mil wet film thickness covers an area of 1604 sf/gal.
1 gal applied over an area of 100 sf. will result in a wet film thickness of 16 mils. The final dry film thickness of the cured membrane depends on the volume solid content of the resin.

Example 1:

Coverage: 2 gal/100 sf = 32 mils WFT (wet film thickness)
Solid contend by volume: 80%
Theoretical dry film thickness: 32 mils WFT x 0.8 = 25.6 mils DFT (dry film thickness)

Example 2:

Requirement: 50 mils DFT
Solid contend by volume: 80%
Theoretical wet film thickness: 50 mils DFT / 0.8 = 62.5 mils WFT
Theoretical coverage: 1604 / 62.5 = 25.7 sf/gal.

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

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SUBSTRATE EVLAUATION / PREPARATION

All surfaces must be clean, dry, and sound.

COMMON SUBSTRATES

Cement or Cementitious Substrates

New Concrete and Cementitious Substrates 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 roofing/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.

SUBSTRATE EVLAUATION / PREPARATION - Continued

COMMON SUBSTRATES - Continued

Gypsum and Cement Based Sheathing

Sheathing boards must be clean, dry, dust free, and properly secured to the building structure. Loose, damaged, or contaminated boards are removed and replaced.

Brick and Stone

Mortar joints must be sound and preferably flush pointed.
Power wash and use biodegradable detergent with a 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 biodegradable detergent with a clean water rinse as required. All major cracks should be sealed to allow continuity of the Sikalastic® RoofPro system.

Bituminous Felt

Bituminous felt is firmly adhered or mechanically fixed to the substrate. It should not contain any badly degraded areas. Power wash and use biodegradable detergent with a clean water rinse as required. Treat blisters by star cutting and removing any underlying water; allow to dry and readhere using suitable adhesive. There are many types of bitumen felt with variable softening points and additives, test compatibility before use.

Bituminous Coating

Bituminous coatings should not have sticky or mobile surfaces, no volatile mastic or coal tar coatings. Remove loose or degraded coatings. Power wash and use a biodegradable detergent with a clean water rinse as required, allow to dry. Test compatibility before use.

Metals

Metals must be in sound condition. Surfaces should be clean and free from grease. Grease must be removed with a solvent wipe or wash with detergent, rinse and dry. Ferrous metals should be thoroughly cleaned by grinding or blast cleaning prior to priming (SSPC-SP3 or SSPC SP11 near white/bright 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. Steelwork is ideally prepared to Sa2½ (Swedish Standard SIS 05: 5900 = 2nd quality BS4232 = S.S.P.C. grade SP10) or as indicated by the blasting specification, using the higher standard. Stainless steel must be mechanically abraded to create an appropriate anchor profile.

Wood Substrates

Plywood and timber based roof decks must be dry and 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 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, i.e. plywood. Fill joints flush with Sikaflex® sealant.

SUBSTRATE EVLAUATION / PREPARATION - Continued

COMMON SUBSTRATES - Continued

Paints/Coatings
Ensure existing material is sound and firmly adhered. Remove any loose or degraded coatings. Power wash and use a biodegradable detergent with a clean water rinse to remove oxidation, dirt, dust and debris, allow to dry. Test compatibility before use.

Existing Sikalastic® RoofPro Systems
The existing Sikalastic® RoofPro System is soundly adhered to the substrate. Clean the membrane using a pressure washer at approximately 140bar (1000 psi) and biodegradeable non-sudsing detergent with clean water rinse. Allow to dry.

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

Note: Sika makes a wide range of repair products to correct / repair substrates. Consult your local Sika Representative

PRIMING

Primer selection for properly evaluated and prepared substrates. 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.

SUBSTRATES & PRIMER OPTIONS

Concrete & Cementitious Substrates - (1)
- Sikalastic® Concrete Primer Lo-VOC
- Sika® Bonding Primer
- Sikalastic® DTE Primer
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid
- Sikalastic® GDC Primer

Lightweight Structural Concrete - (*)(1)
- Sikalastic® Concrete Primer Lo-VOC
- Sika® Bonding Primer
- Sikalastic® DTE Primer
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid
- Sikalastic® GDC Primer

Cement, Gypsum Based Roof Boards
- Sikalastic® Concrete Primer Lo-VOC
- Sika® Bonding Primer
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid

PRIMING - Continued

SUBSTRATES AND PRIMER OPTIONS - Continued

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/Sealer Rapid

Single Ply PVC Membranes *3 Sarnafil, Sikaplan *3
- Sikalastic® EP Primer/Sealer

Hypalon *3
- Sika® Bonding Primer

TPO, EPDM - (*)(3)
- 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 Slabstock - (*)
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid

Metal-Aluminum, Galvanized, Cast Iron,Copper, Lead, Brass, Stainless Steel,Steel, Zinc - (3)
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid

Pre-Coated Metal - (*)(3)

Paints & Coatings -(*)(3)(6)

Aluminized Solar Reflective Coatings - (3)
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid

Wood - Timber & Plywood - (*)(5)
- Sikalastic® Concrete Primer Lo-VOC
- Sikalastic® EP Primer/Sealer
- Sikalastic® EP Primer Rapid

PRIMING - Continued

SUBSTRATES AND PRIMER OPTIONS - Continued

Existing Sikalastic® RoofPro System - (*)(7)

- Sikalastic® Concrete Primer Lo-VOC
- Sikalastic® Reactivation Primer
- Sikalastic ReCoat Primer

(*) 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®
(6) Silicone-based paints and coatings are not acceptable
(7) Required at tie-ins once 7-day recoat window has been exceeded

Note: For the Application Instructions/Waiting Time /Overcoating please refer to the PDS of the appropriate primer. Other substrates must be tested for their compatibility. It is recommended to apply a test area first.

FIELD ADHESION TESTING

Field adhesion tests are performed to confirm compatibility of the Sikalastic® RoofPro System to the substrate. (Reference Sikalastic RoofPro Adhesion Testing Guidelines at USA.SIKA.COM)

Adhesion Peel Testing

1. Prepare existing substrate or coating as proposed for the project. Follow manufacturers' guidelines on proper surface profile and conditions.
2. **Method (a) Full System Test:** Apply Sikalastic Primer proposed for the project and allow it to cure until tack free. Then apply the proposed Sikalastic-600 series resin and while it is wet perform Step 3.
   Method (b) Primer Only Test: Apply the proposed Sikalastic Primer and while it is wet perform Step 3.
   Note: Sikalastic-600 resins have been tested for adhesion to all Sikalastic Primers. Primer-only testing with thin low solids primers should be avoided.
3. Prepare 16" long strips of 6", 3", or 1" wide Sika Flexitape Heavy fabric or tight weave fabric. A 6-8" length of the fabric strip should be saturated with:
   Method (a) Full System Test: Selected Sikalastic-600 resin.
   Method (b) Primer Only Test: Selected Sikalastic Primer
4. Leave 12" of Sika Flexitape Heavy unsaturated to allow for attachment to the test scale.
   Testing Primer Adhesion Only: Allow Primers to cure 48-72 hours before the peel adhesion test.
   Testing System: Sikalastic 624 & 621 over a primer, allow to cure for 7 days before the peel adhesion test.
   Testing System: Sikalastic 641 Lo-VOC & 644 Lo-VOC over a primer, allow to cure a minimum of 14 days before peel adhesion test.
5. A minimum of three test peel samples are required to provide a meaningful result for a test area. Variations in existing coating type/application, a larger project size (greater than 10,000 sf), separate deck areas, etc. are project conditions that may warrant the performance of additional test samples.

FIELD ADHESION TESTING - Continued

Adhesion Peel Testing - Continued

6. Create a 1" wide test strip by cutting through each adhered fabric sample and through the existing coating down to the underlying substrate.
   Note: Testing with a 3" wide strip of Sika Flexitape Heavy is allowed. See #10 for the minimum required results.
   Alternate Attachment Method: Tie the unsaturated tag end of the Sika Flexitape Heavy to the scale.

7. Attach a tarp clip to the loose end of each test strip (TEKTON 6268 or equal). Hook a digital scale (RAPALA 50 LB or equal) to the tarp clip. Apply a 180° load until the strip peels off.

8. Evaluate the results. A test result of 8 lbs./linear in. or greater is considered acceptable and the evaluated substrate is a suitable substrate for RoofPro application. If testing using a 3" wide strip of Sika Flexitape Heavy the required 8 lbs./linear in. (8 pli – Pounds Per Lineal Inch) must be multiplied by 3, i.e., 8 X 3 = 24 pounds required on the scale for the minimum 8 pli requirement.

9. **Document the pull test with a video or picture of the scale results with the test strip attached and send it to your local Sika Technical Field Services Representative or Sika Sales Representative.**

Puck Pull Off Testing

1. Clean and prepare substrate as required
2. Apply Primer and allow to cure
3. Apply Sikalastic RoofPro System including reinforcement
4. Allow resin to cure for a minimum of 7 days
5. Metal dollies are adhered to the membrane surface with quick-cure epoxy adhesive and allowed to cure overnight
6. Score through coating down to substrate at a diameter equal to diameter of the dolly
7. The test machine jaws are slid around the top of the dolly and a load is applied until failure
   - Value ≥ 200 psi with cohesive failure in the substrate are acceptable
   - Value < 100 psi with adhesive failure are not acceptable

Prior the application of Sikalastic® RoofPro resin the priming coat must cure tack-free. For the waiting time / overcoating please refer to the PDS of the appropriate primer. Damageable areas (handrails etc.) should be protected with tape or plastic wrapping.

CRACK AND JOINT TREATMENT

Non-Structural Cracks Up To 1/16 Inch

Apply embedment/base resin layer as normal.

Non-Structural Cracks Between 1/16 And ¼ Inch

Rout and seal with Sikaflex sealant. Apply 40-45 mil resin layer embedded with Sika Flexitape Heavy or use Sika Joint Tape SA centered over the crack. Apply embedment/base layer as normal.

Cracks And Joints Between ¼ And 1 Inch

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'' wide Sika Flexitape Heavy or use Sika Joint Tape SA centered over the crack or joint. Apply embedment/base layer terminating Sika Reemat at edges of crack or joint overlapping onto the Sika Flexitape Heavy or Sika Joint Tape SA a minimum of 2 inches on both sides. Sika Fleece can bridge over and requires no special termination.

CRACK AND JOINT TREATMENT - Continued

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

Metal, Plywood, Roof Cover Board, Cement Board Joints And Seams
Apply 40-45 mil resin layer embedded with Sika Flexitape Heavy, or Sika Joint Tape SA. Apply embedment resin layer as normal.

Transitions Between Dissimilar Materials
Apply 40-45 mil resin layer embedded with Sika Flexitape Heavy or use Sika Joint Tape SA centered over transition. Apply embedment resin layer as normal.

90° Transitions
Install a ½' to 1" tooled cant cove of Sikaflex sealant. Locally reinforce with 40-45 mil resin layer embedded with Sika Flexitape Heavy or Sika Joint Tape SA. Apply embedment resin layer as normal.

EXPANSION JOINTS

EXPANSION JOINT INSTALLATON STEPS:

1. Prepare the substrate and prime with recommended primer on both sides of the joint. Apply bond breaker tape at a depth equal to the width of the joint on the vertical side in the edge of the joint. Apply Sikalastic 600 series resin at approximately 40 mils/wft on both sides of the joint.

2. Apply Sikalastic Flexitape Heavy centered onto the joint while the resin is still wet. Push the center of Sika Flexitape Heavy into the joint to have enough space for the backer rod profile. Sika Flexitape Heavy should follow the cradle created by the bond breaker.

3. Apply Sikalastic-600 resin in the center and fully saturate the Sikalastic Flexitape heavy - overcoat both top sides of Sika Flexitape Heavy with Sikalastic 600 series resin at approximately 30 mils/wft. Allow the Sikalastic resin to cure.

4. Place backer rod into the cradle about halfway above the top of the joint.

5. Apply bond breaker tape on top of the backer rod.

6. Apply Sikalastic 600 series resin at approximately 40 mils/wft on both sides of the joint and over the bond breaker tape. Embed Sika Flexitape Heavy 6" centered over the joint and fully saturate with Sikalastic resin.

7. When applying the horizontal surface of the Sikalastic RoofPro Membrane, the field reinforcement should not go over the joint.

NOTE: For specific or complicated detailing, please consult Sika Technical Service Department or your local Sika Technical Field Service Representative.

SIKALASTIC® ROOFPRO SYSTEM APPLICATION

Sikalastic RoofPro membranes for the field and detail locations consist of a Sikalastic RoofPro saturating resin and either a Reemat chopped-strand fiberglass or a non-woven polyester Fleece reinforcement.
All Sikalastic saturating resins are single-component and require no mixing.
Refer to the System Assembly Table for the selected Sikalastic RoofPro system being installed. Refer to separate system Product and System Data Sheet for application methods, coverage rates, cure times and recoat windows.
Always allow each resin application to cure thoroughly before applying subsequent resin layers.

APPLICATION WITH SIKA REEMAT REINFORCEMENT

Always begin with details prior to starting with waterproofing of the horizontal surface. For details follow step 1-3

Details

1. Prepare the required pieces of Sika® Reemat for each particular detail. Tear the fabric to overlap rather than cutting it and overlap a minimum of 2-inches.

2. Apply Sikalastic RoofPro resin with a ½ inch nap phenolic resin core roller at approximately 50 mils WFT (3 gallons/square) onto the detail. Work only so far in advance that the material stays liquid.

3. Place Sika Reemat in wet base resin layer overlapping seams a minimum of 2 inches (place frayed edge over cut edge of roll) and apply wet roller to topside to conform and saturate completely to the substrate. After approximately 5 minutes, the binder will begin to dissolve allowing the fiber strands to conform to irregular surfaces. Use Chip brushes and/or fiberglass bubble roller to conform upstanding fibers in corners and complicated details. Do not over work once the fibers have conformed to the substrate. Allow to cure 12 hours at 70°F and 50% RH or until tack free.

Full Surface Application

1. Apply specified Sikalastic resin per RoofPro System Data Sheets. Use a ½ inch nap phenolic resin core roller. Work only so far in advance that the material stays liquid.

2. Roll Sika Reemat in wet base resin layer overlapping seams a minimum of 2 inches (place frayed edge over cut edge of roll) and apply wet roller to topside to conform and saturate completely to the substrate. 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% RH or until tack free before applying top resin layer. Keep clean and dry and apply top resin layer within 7 days. If application window is exceeded, repriming is needed. Clean with water and detergent as needed, allow to dry prior to application of appropriate primer. (Sika Reactivation Primer, Sika Concrete Primer Lo-VOC or Sikalastic Recoat Primer).

3. Before applying the second coat, check for upstanding (proud fibers) Reemat fibres. These fibers have to be eliminated by using sandpaper or other appropriate means.

APPLICATION WITH SIKA REEMAT REINFORCEMENT - continued

FULL SURFACE APPLICATION - Continued

4. Apply second coat of Sikalastic resin per the RoofPro System Data Sheets. Use a ½ nap phenolic resin core roller. Material can also be squeegee and back rolled or spray applied. In the case of RoofPro 25 allow the first top resin layer to cure 12 hours at 70°F and 50% RH or until tack free before applying second top resin layer. Keep clean and dry and apply additional resin layers as system requires within 7 days. If application window is exceeded, repriming is needed. Clean with water and detergent as needed, allow to dry prior to application of appropriate primer. (Sika Reactivation Primer, Sika Concrete Primer Lo-VOC or Sikalastic Recoat Primer).

* Material will dry at the surface in around 30 minutes depending on temperature. Always maintain a wet edge and finish surface as work proceeds. Going back to rework areas that are partially dried may disrupt the surface.

APPLICATION WITH SIKALASTIC FLEECE

The application of Sikalastic RoofPro Fleece Systems is a wet on wet process.
Always begin with details prior to starting with waterproofing of the horizontal surface. For details follow step 1-3

Details

1. Prepare the required pieces of specified Sika Fleece for each particular detail. Sika® Fleece requires pre-cutting of the fabric/prefitting to conform to the detail. Ensure proper overlap of at least 3-inches.

2. Use a ½ inch nap phenolic resin core roller to apply 2/3 of the Sikalastic resin to the detail per the RoofPro System Data Sheets. Work only so far in advance that the material stays liquid.

3. Place specified Sika® Fleece in wet base resin layer overlapping seams a minimum of 3 inches. Apply wet roller to topside with light pressure to saturate from the bottom and ensure air pockets are completely removed. immediately apply all of remaining 1/3 of Sikalastic resin to ensure even and complete saturation from topside to obtain a uniform texture. Allow to cure 12 hours at 70°F and 50% RH or until tack free.

Full Surface Application

1. Use a ½ inch nap phenolic resin core roller to apply 2/3 of the Sikalastic resin to the substrate per the RoofPro System Data Sheets. Work only so far in advance that the material stays liquid.

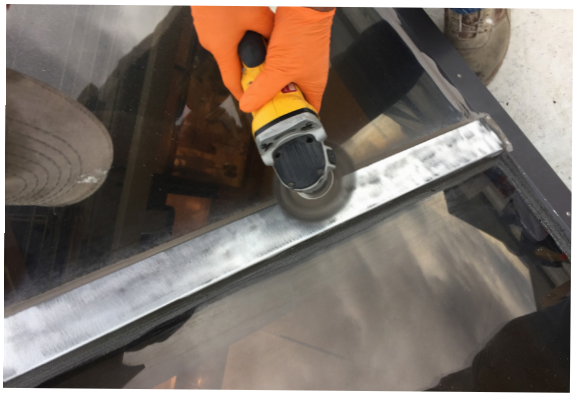
2. Immediately place specified Sika Fleece into the wet resin overlapping seams a minimum of 3 inches along the edges and 6 inches end to end.

3. Apply wet roller to topside with light pressure to saturate from the bottom and ensure air pockets are completely removed. Immediately apply all of remaining 1/3 of Sikalastic resin to ensure even and complete saturation from topside to obtain a uniform texture.

APPLICATION OF SIKALASTIC CLEARGLAZE ON SKYLIGHTS

1. Prepare, clean and prime the substrates as required. Mask off the glass or skylight out 2 inches from the mullion.
2. Solvent wipe the 2-inch glass area (picture frame) that is masked off and allow to flash before applying Sikalastic Clearglaze as primer on the glass. Remove the masking tape while Sikalastic Clearglaze is still wet to leave a clean sharp edge. Apply masking tape on the same location after Sikalastic Clearglaze has cured.
3. Apply Sikalastic 621 TC or 624 WP resin to the primed surfaces of mullion and glass. While the Sikalastic resin is wet lay in precut lengths of Sika reinforcing scrim and embed with a wet roller or brush to ensure full saturation and conformation to the substrate. Remove the masking tape from the skylight lens while Sikalastic resin is still wet to leave a clean sharp edge. Allow to cure 12 hours at 70°F and 50% RH or until tack free.
4. Apply Sikalastic Clearglaze by foam roller at 20 mils WFT (80ft^2/gal). Lap up onto the installed RoofPro membrane with min 2 inches butting up against the mullion. Allow to cure for 8 hours at 68 °F. Apply second coat of Sikalastic Clearglaze by foam roller at 20 mils WFT (80ft^2/gal) and let cure.

Power tool cleaning of mullion



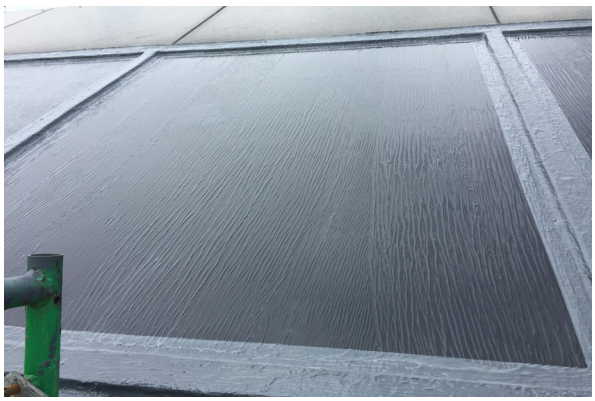
Clearglaze primer application on glass

Pull masking tape while coating is wet

2nd Application of masking tape to dry primer

Pull masking tape while 2nd coat is wet

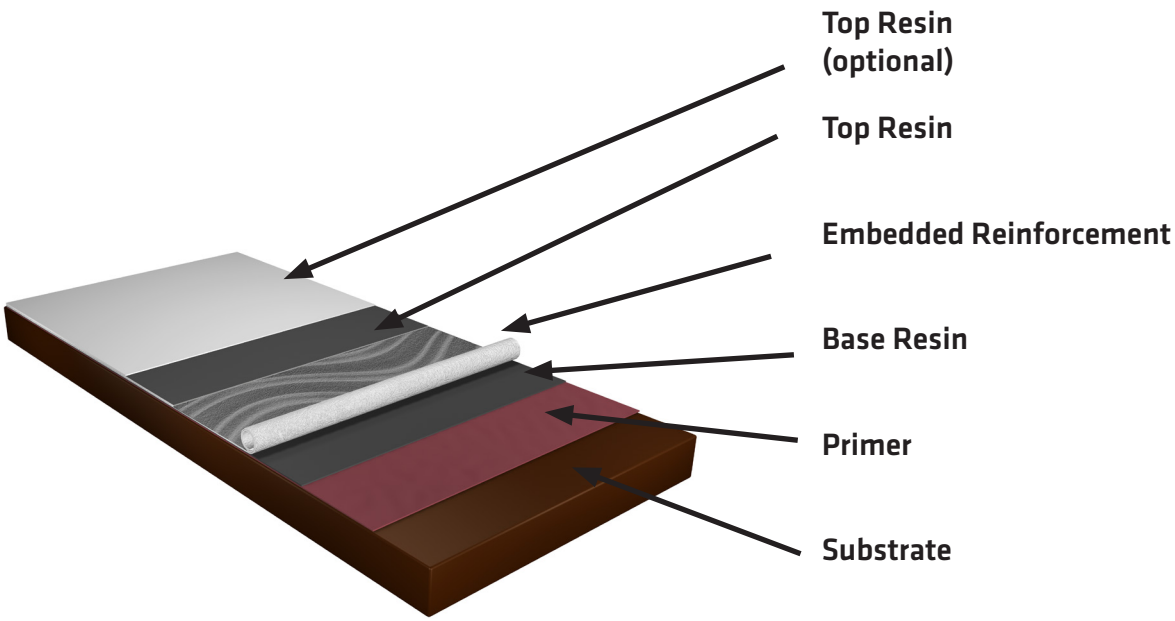
Applied Clearglaze with foam roller



STANDARD SYSTEM DETAILS

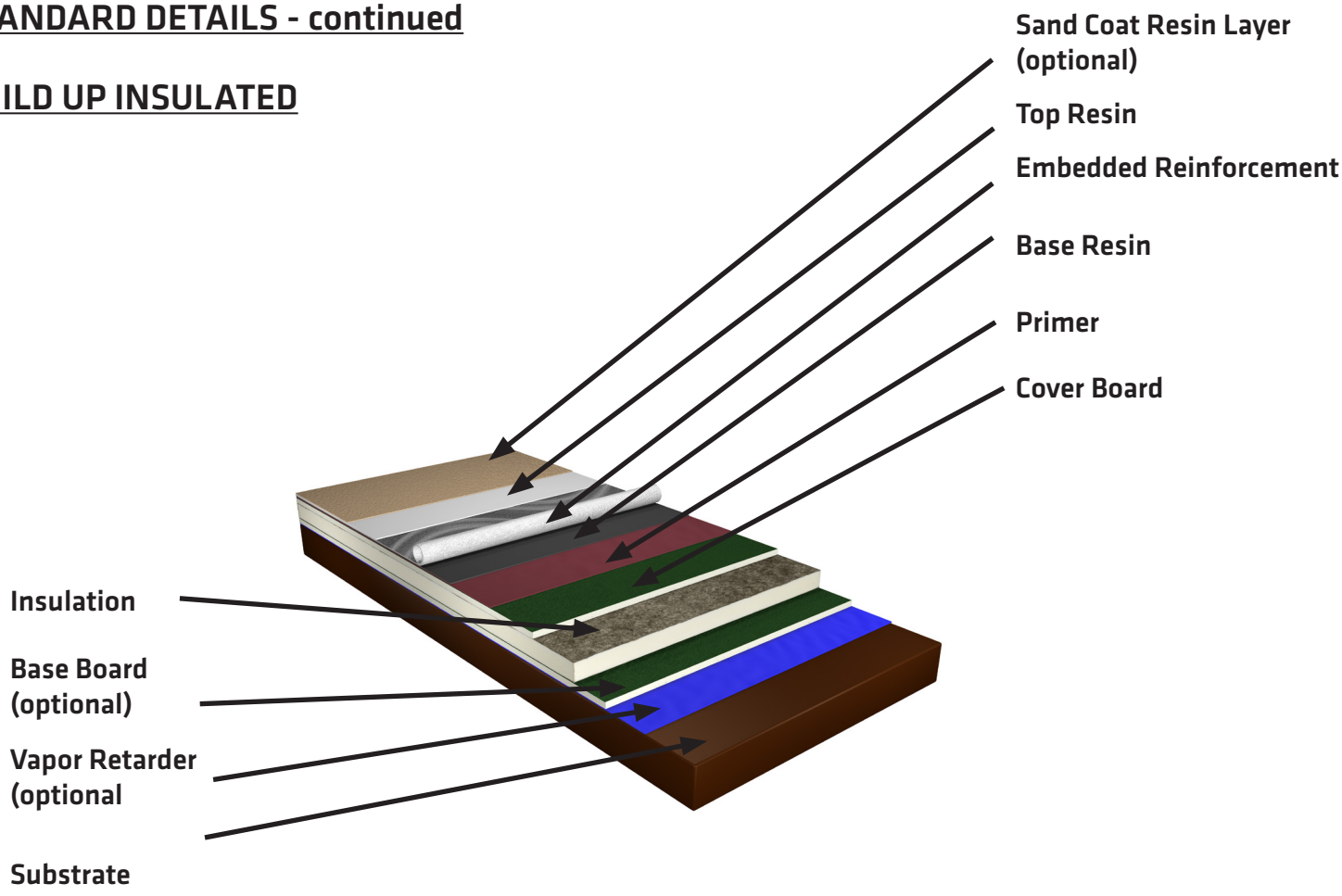
The following are a sample of available details to provide guidelines for the installation of the Sikalastic RoofPro roofing and waterproofing systems. These details should be used as a guideline only. Decisions on final details should be made by the applicator in conjunction with the architect, engineer or consultant after evaluating conditions, code requirements and other standards. For detailed information on the installation of Sikalastic RoofPro roofing and waterproofing systems, refer to the product data sheets and individual guide specifications. A full range of PDF, and CAD, 3D and BIM details, including High Wind Zone attachment details, and editable 3-part CSI type guide specifications are available through **usa.sika.com**.

DIRECT TO SUBSTRATE

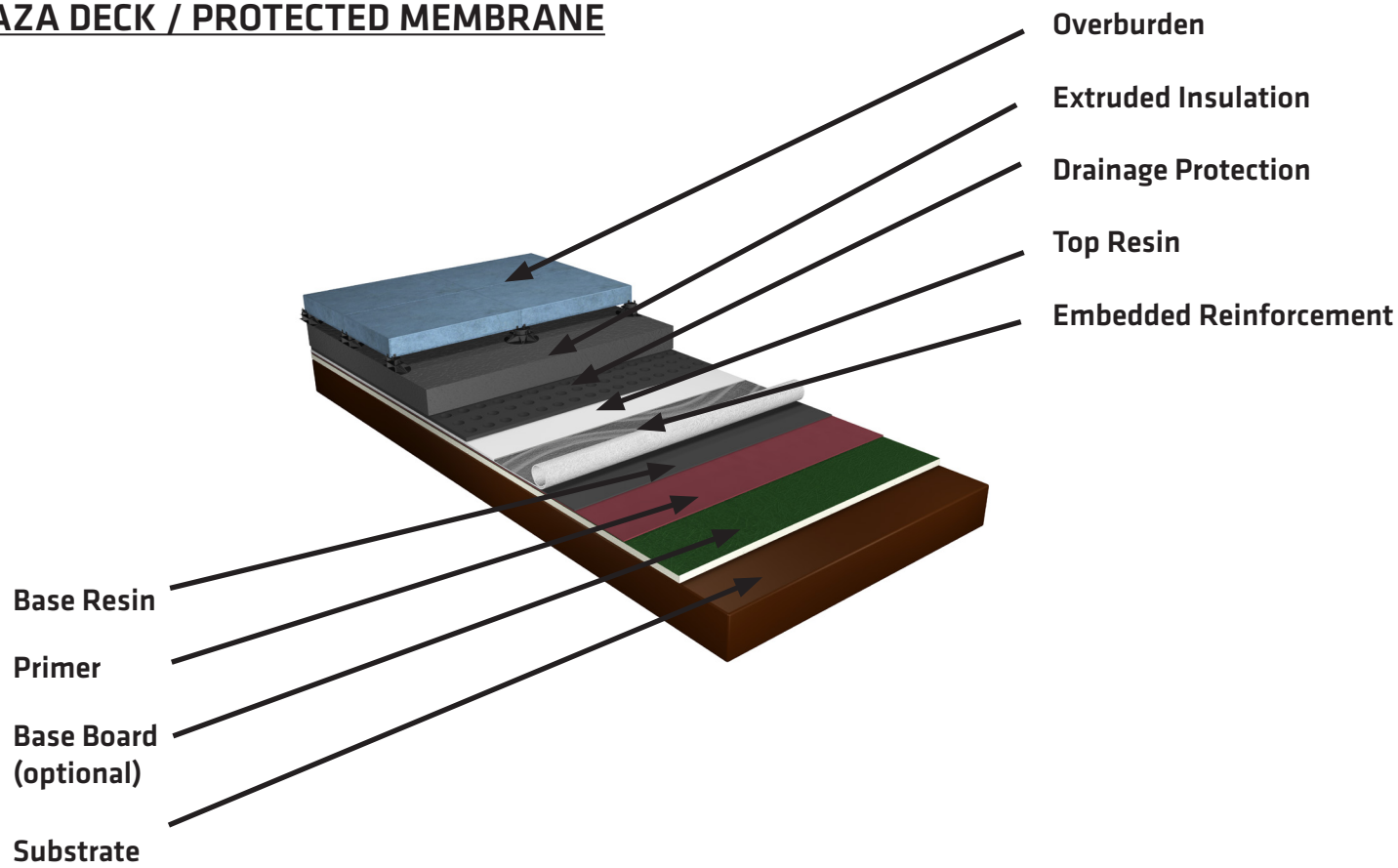


STANDARD DETAILS - continued

BUILD UP INSULATED

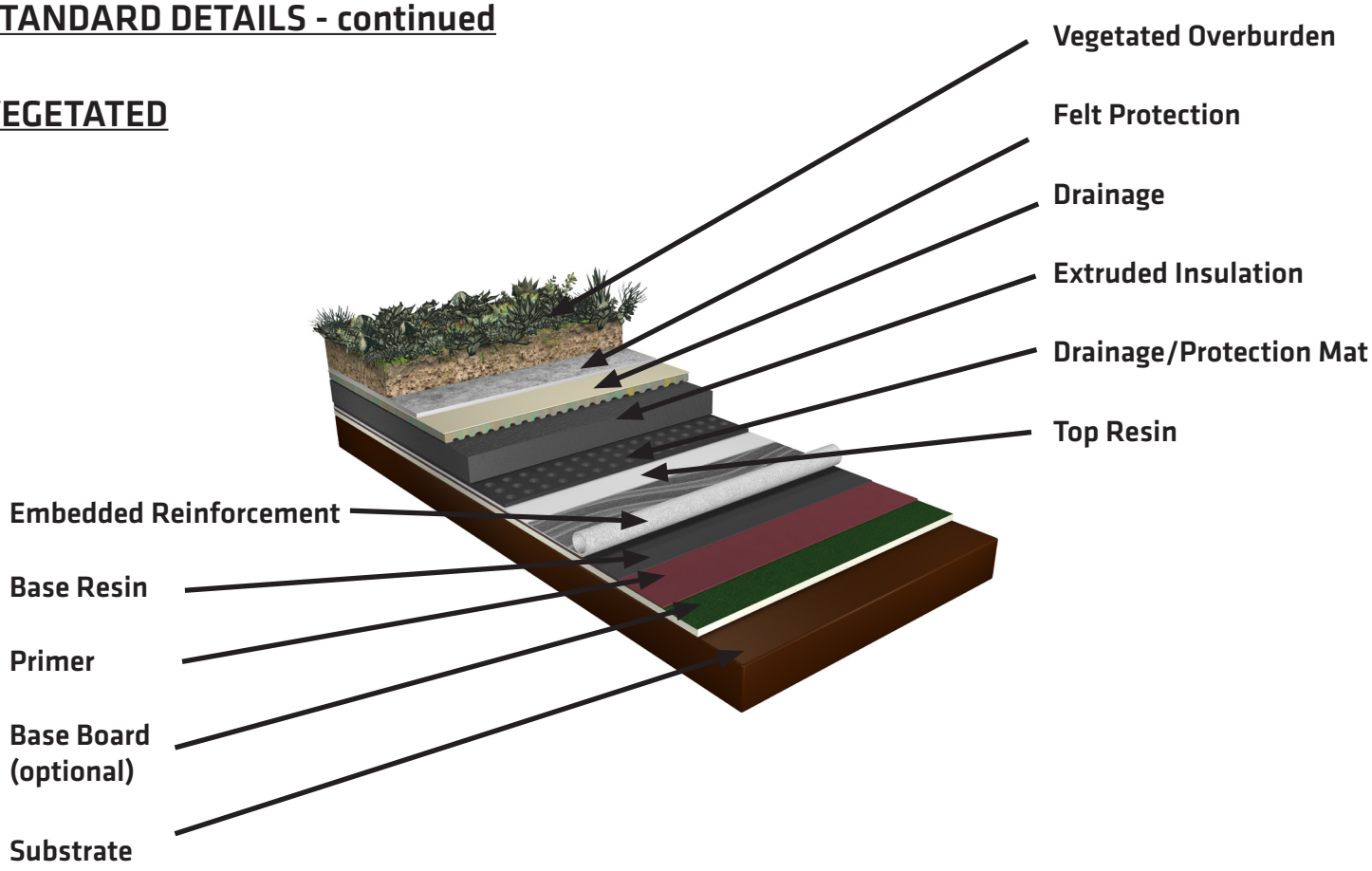


PLAZA DECK / PROTECTED MEMBRANE

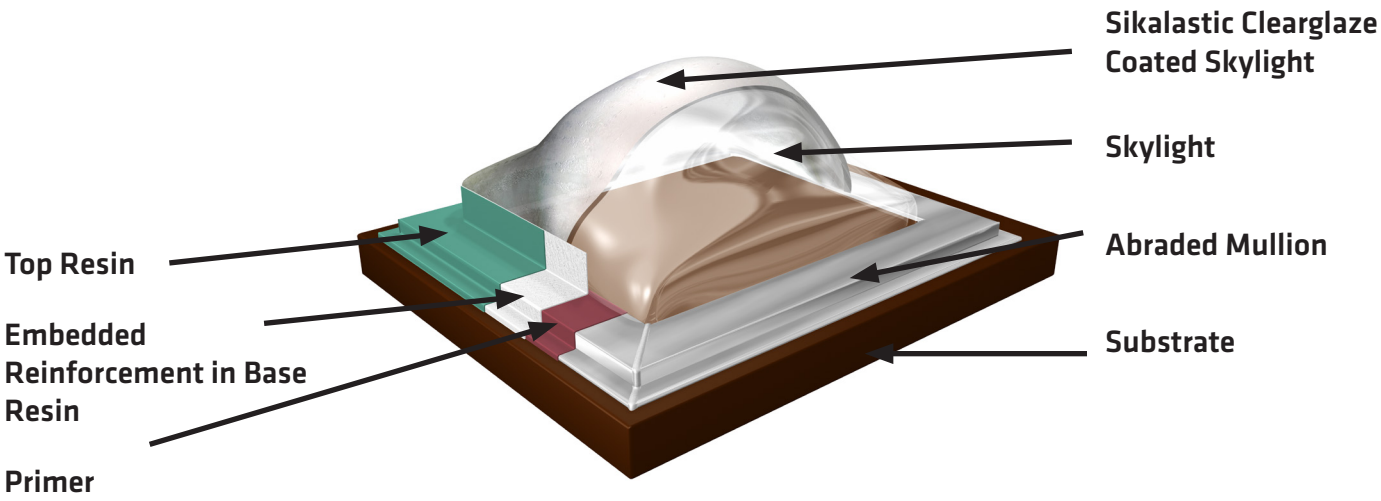


STANDARD DETAILS - continued

VEGETATED



SKYLIGHT WATERPROOFING



AGGREGATE & FLAKE SURFACING

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

SEED AND BACK ROLL

The seed and back roll option is primarily intended for maintenance traffic-type applications where enhanced slip resistance is required. Apply the supplemental Sikalastic 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

The full broadcast and seal option is intended for applications where both enhanced slip resistance and physical protection of the roofing membrane is required. Apply the supplemental Sikalastic 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.

DECORATIVE QUARTZ & DECORATIVE FLAKE

The decorative quartz and decorative flake options are intended for applications where enhanced slip resistance, physical protection of the roofing membrane, and a decorative element is required. Apply the supplemental Sikalastic 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 colored quartz aggregate or synthetic flakes. Remove excess aggregate/flakes after cure. Seal with a coat of Sikalastic 748 PA at 15 mils wet film thickness. Decorative flakes can also be seeded at less than full broadcast quantities. Remove excess aggregate/flakes after cure. Seal with a coat of Sikalastic 748 PA at 15 mils wet film thickness. **Note:** Sikalastic 748 PA can only be applied over Sikalastic 621 TC or Sikalastic 624 WP resins.

FULL BROADCAST ADHESION KEY OPTION

The full broadcast adhesion key option is intended for applications where adhesion of the overburden to the waterproofing membrane is required.

Apply the supplemental Sikalastic 624 WP or Sikalastic 644 Lo-VOC resin at 15 mils wet film thickness to the installed, cured Sikalastic 624 WP or Sikalastic 644 Lo-VOC membrane system. While the supplemental resin is still wet broadcast to rejection (full broadcast, beach) with kiln dried, iron free aggregate. Remove excess aggregate after cure. **DO NOT seal.**

Note: Recommended to allow the supplemental Sikalastic 624 WP resin to cure a minimum of 24-48 hours. Allow Sikalastic 644 Lo-VOC resin to cure a minimum of 48-72 hours; before application of cementitios overburden.

AGGREGATE SELECTION

Use clean, rounded or semi-angular, 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
- Sika Broadcast Quartz Blends or equivalent for Decorative Quartz systems
- 16-30 mesh for full broadcast adhesion key systems

Quality of uniformity, shape and purity varies widely throughout the US, in some cases even from the same supplier. Care should be taken to verify suitability prior to use. The following sources are known to provide aggregates that meet the above criteria:

- Carmeuse Industrial Sands, Brady, TX or Colorado Springs, CO
- Unimim, Ottawa, MN, Junction City, GA, or Voca, TX
- Sika Corporation, Wheeling, IL (Broadcast Quartz only)

Use quartz sand with minimal iron oxide/iron-containing impurities; iron based contaminants may cause rust stains in the finished coating system. It is highly recommended that the quartz sand supplier provide certifications that specifically list iron oxide/iron content – 0.05% maximum is suggested.

FLAKE SELECTION

Use vinyl flakes, supplied in prepackaged bags and free from impurities, from the following source Sika Corporation

In all cases, preinstallation mockups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommend.

LIMITATIONS

- To avoid dew point conditions during application, relative humidity must be no more than 95% and substrates temperature must be at least 5°F (3°C) above the measured dew point temperatures.
- Minimum ambient temperature during application of material is 41°F (5°C); maximum is 95°F (35°C). Surface temperatures must be no higher than 140°F (60°C). Frequent monitoring of ambient and substrate temperature should always be done when applying polyurethane resins. Note that low temperatures and low humidity will slow down the cure and high temperatures and high humidity will accelerate it.
- Do not apply on substrates with moisture content greater than 4% by weight, measured by Tramex Concrete Moisture Encounter meter (Moisture content over 4% use Sikalastic GDC Primer)
- Minimum age of concrete must 28 days depending on curing and drying conditions. For green concrete use Sikalastic GDC Primer
- Do not thin product
- Do not store materials outdoors exposed to sunlight and moisture for prolonged periods.
- 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 temperatures pinholing or blistering may occur
- Do not use for indoor applications without provision for adequate ventilation
- Do not apply cementitious products, such as tile mortar directly onto Sikalastic 621 TC and 641 Lo-VOC
- For cemetitious overburden and other overburden use Sikalastic 624 WP or Sikalastic 644 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 will 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 a Sikalastic RoofPro membrane system
- Unvented metal pan, split/sandwich slab with encapsulated membrane and/or insulation, cinder fill decks and lightweight insulating concrete overlays should not be covered with Sikalastic RoofPro membrane systems without additional deck evaluation and subsequent approval by Technical Services.
- Do not subject to continuous immersion, i.e., fountains, ponds and other water features. Ponding water is not considered to be continuous immersion.
- 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.
- Not recommended for use over ceramic tile
- Going over asphaltic surfaces or residuals without the proper primer can lead to staining of the RoofPro membrane system due to volatile bleed
- For professional use only

TOOLS, EQUIPMENT, & GENERAL APPLICATION TECHNIQUES

CHECKLIST:

- [ ] Phenolic resin/solvent resistant roller covers (1/2 inch nap), heavy duty frames and extension handles – 4 inch for detailing, and 9, 12 or 18 inch for base and top coats
- [ ] Chip brushes for detailing
- [ ] Wet film thickness gauges
- [ ] Acetone or Denatured alcohol for cleaning
- [ ] Rags or towels
- [ ] Mixing pails
- [ ] Measuring containers
- [ ] Duct tape or blue tape for masking
- [ ] Scissors, razor knife, razor blades, tape measure, flat blade screwdriver, 5 in 1 scraper
- [ ] 60 grit sandpaper or vibratory sander for proud fiber removal
- [ ] Drop cloth or polyethylene sheeting
- [ ] Mixing drill and appropriately sized mixing paddles for primers
- [ ] Pail or Drum opening tool
- [ ] Sikaflex joint sealant, caulking gun and coving/finishing tools
- [ ] SikaRepair, SikaTop, or SikaQuick cementitious repair mortars
- [ ] Sikadur crack and surface profile repair resins
- [ ] Backer rod and bond breaker tape
- [ ] Shot blaster or scarifier
- [ ] Grinder
- [ ] Broom, shovel, blower and vacuum
- [ ] Moisture meter or moisture test materials
- [ ] Work lights and extension cords
- [ ] Hand truck for moving materials
- [ ] Coveralls and rubber boots
- [ ] Rubber and leather gloves
- [ ] Goggles or appropriate eye protection
- [ ] NIOSH approved respirators (as required)

BRUSH APPLICATION

Brush application is usually only used for small detail areas like drains, scuppers, pipe penetrations, etc. Use chip brushes for application of the Sikalastic resins. Use of brushes is a one-time only application and a new brush is required once the resin sets in the brush.

ROLLER APPLICTION

Use heavy gauge roller frames and ½ inch phenolic resin core rollers. When applying base coats always refer to the technical data sheets for coverage rates and wet film thickness. As a rule of thumb one full dip of the ½ inch roller placed in the center of the width of the reinforcing roll then rolled in both directions 9 inches will leave roughly 40-45 mils WFT. Check this application technique with wet film thickness gauges to ensure that proper base coat thickness is being achieved. Top coat applications should always be checked on a regular basis with wet film thickness gauges to ensure proper coverage. It is recommended that a cross hatch rolling pattern be used when applying top coat by roller to achieve a more uniform application. Use of the roller covers is a one-time only application and a new roller cover is required once the resin sets in the roller cover. Soak roller frames in a bucket with solvent and a tightly fitting lid to assist with extending the life of the roller frame to keep it rolling smoothly.

SQUEEGEE APPLICATION

All squeegee applications whether for base coat or top coat must be back rolled before Reemat reinforcement embedment and to leave a smooth top coat. Sikalastic saturating resins are not self leveling products. Use an appropriately size notched squeegee to achieve the desired wet film thickness specified in the RoofPro System Guides. The roughness of the substrate will wear down the squeegee. Check the film thickness on a regular basis with wet film thickness gauges and replace worn squeegee blades as required to maintain proper mil thickness during application.

Walking in the wet Sikalastic resin with spike shoes is acceptable, but once Reemat reinforcing scrims are laid into the wet resin do not walk over the reinforcing scrim with spike shoes. Work only as much square footage as can be embedded before skinning of the surface and only as wide a run as can be reached with the roller and extension handle.

SPRAY APPLICATION

Airless spray equipment should achieve a minimum of 3000 psi at 1-gallon per minute delivery rate. Use appropriately sized hoses for the distance the materials need to be pumped, i.e. the longer the distance the larger diameter hose should be used to deliver product to the spray gun. Use spray tip sizes from .021 to .035.
Caution: Spraying these products could lead to overspray drifting onto structures and vehicles.

COMMON CAUSES & PROBLEMS

BLISTERS

- Moisture in deck or on preceding coat
- Concrete outgassing at time of application
- Entrapping air during application

RECOAT WINDOW MISSED CORRECTION

- Clean the surface of the RoofPro membrane and allow to dry. Apply a coat of the approved Sika reactivation primer being used at a rate of 300-400 ft^2/gallon. Always refer to the current Product Data Sheet for full details

PINHOLES

- Porous concrete
- Air and/or substrate temperatures rising at time of application
- Moisture in the deck
- Inadequate primer

POOR ADHESION TO CONCRETE

- Improper surface preparation
- Hard trowel finish (surface too smooth)
- Contamination by moisture, dirt, impregnations, etc.
- Incompatibility with curing compounds or admixtures
- Lack of primer or improper mixing of primers

POOR INTERCOAT ADHESION

- Recoat window missed
- Preceding coat dirty, damp or application outside of dew point limitations
- Chemical contamination

TENTING/VOIDS AT CHANGES IN PLANE

- Lack of care during embedding of reinforcing scrim to conform to the substrate

PINHOLE AND BLISTER CORRECTION

- Apply additional coat of urethane resin on falling air and substrate temperatures
- Apply additional coat of primer before installing RoofPro membrane system
- Cut out blisters and repair with specified RoofPro membrane resin or system

TENTING CORRECTION

- Cut out tented area and repair with specified RoofPro membrane resin system extending 2-3 inches onto sound, well adhered existing RoofPro membrane

MAINTENANCE & REPAIRS

GENERAL

Sikalastic RoofPro roofing/waterproofing systems require no routine maintenance. It is strongly recommended that periodic inspections be carried out to check for damage by accidental impact or by building modifications on or through the installed Sikalastic RoofPro roofing/waterproofing membrane system.

During inspections, sharp objects such as screws, stones, broken glass and other material should be removed from the surface to minimize the chances of accidental damage by subsequent foot traffic. To prevent damage by excessive localized loading, particularly on roofs incorporating soft insulation, a safe method of load-spreading should be placed under ladders and the supports of free standing structures on the roof. It is strongly recommended that roofs be inspected for damage following adverse weather. It is also advisable to inspect roofing/waterproofing membrane systems after work has been carried out by other trades.

If pavers or other approved overburden are to be installed over the RoofPro membrane system then a proper drainage protection course must be used. Please consult Sika for specific requirements.

INSPECTIONS

It is strongly recommended that inspections be carried out by the client at least annually and be recorded. Inspections in spring should detect any winter related damage and in autumn should ensure that the roof or waterproofed area is cleared of leaves and other debris. Roofs and waterproofed areas in close proximity to trees, subject to high dust/dirt, other pollutants or in other high risk locations should be inspected more frequently.

The following is a list of typical areas to inspect, although each individual installation may have other areas that require inspection:

- **General areas** – remove leaves, debris, dirt and any other extraneous material. Cut back over hanging tree limbs
- **Parapets**, curbs, flashings, covers, expansion joints/covers, and copings – check exposed membrane for damage and ensure the components themselves, sealants and pointing, are in good condition and still performing
- **Mastic joints** – PU sealants (or similar) application to parapets, curbs or other details does not form part of the warranty and may require replacing as joints fatigue and sealants weather. It is recommended that any necessary replacement work must be installed by a trained applicator, utilizing the original contractor whenever possible. All rework should ensure complete removal of old sealants, correct cleaning and reinstatement of the joint
- **Edge details, drip edges** – check that edge details are properly secured to provide protection against wind uplift
- **Membrane flashings** at walls, curbs and gutters – check exposed membrane for any damage and ensure sealants, mastics and pointing are in good condition and effective. Gutters should be cleaned regularly to allow draining
- **Penetrations and protrusions** e.g. pipes, outlets, skylights, etc. – check exposed membrane for any damage and ensure sealants, mastics and clamps are in good condition and effective
- **The anti-slip/anti-skid/decorative finish** is an optional additional coat to the RoofPro system. The longevity of this non-skid application depends on factors such as volume and type of traffic. Check non-skid finishes periodically to evaluate their condition. A reduction in the non-skid layer will produce a reduction in the slip-resistance quality of the surface
  The anti-slip/anti-skid/decorative finish is not covered under warranty and should be renewed as and when necessary

CHEMICAL SPILLS

On roofing/waterproofing membrane systems, chemical spillage is always possible. In the event of such an accident or during routine maintenance, the area should be washed down thoroughly with a domestic detergent solution and rinsed with fresh clean water until all traces of the chemical have been removed from the surface. Ensure sufficient measures are in place to prevent potentially harmful chemicals from entering the water drainage system. If in doubt about chemical reagents and their effect on the RoofPro membrane system, contact Sika Technical Services. Always refer to product SDS sheets for cleaning up chemical spills.

CLEANING

The membrane will not ordinarily support organic growth. Accumulated dirt on the surface due to uneven slope, bird baths, etc., may provide nutrients to support organic growth. Algae and other such dirt accumulations should be removed by washing with a domestic detergent solution and rinsed with clean water. Failure to remove heavy dirt accumulations may result in severe vegetation growth which could lead to damage of the membrane.

REPAIRS

In the event of localized damage, or to reinstate a completely seamless membrane following structural modifications, repairs can be made quickly and easily. All repairs should be carried out by the original installing contractor whenever possible to avoid any division of responsibility. Temporary repairs may be appropriate for short term exposure only. A full permanent repair of the Sika RoofPro system must be done at the earliest opportunity to maintain the warranty.

Typical Repair Steps:

- Clean with a scrub brush or pad with a low-sudsing detergent and a clean water rinse
- Wipe with denatured alcohol or acetone and a clean rag
- Prime membrane with appropriate Sika reactivation primer
- Install Sikalastic RoofPro membrane repair extended 2"-3" beyond area to be repaired

Areas of exposed substrate will typically require mechanical abrasion and repriming with an appropriate Sika primer. Contact Sika Technical Services for exact repair procedures for project conditions.

ECOLOGY HEALTH & SAFETY

Keep container tightly closed. Keep out of reach of children. Not for internal consumption. For industrial use only. For professional use only. For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

RECOMMENDED:

HEALTH AND SAFETY

Refer to product labels and Safety Data Sheets (SDS) for specific health and safety information on the products referenced in this Manual. In order to minimize worker exposure good workplace practices are necessary.

GENERAL PRECAUTIONS

Keep flammable liquids away from all sources of heat, flame and sparks. Avoid eye and skin contact. Wash thoroughly after handling materials. Store containers in a cool, dry, well ventilated area. Keep containers tightly closed when not in use.

VENTILATION

Use only in areas with adequate air movement to remove vapors and prevent atmospheric concentrations of vapors or mists from exceeding current Permissible Exposure Limits (PEL) listed on the SDS. Provide adequate ventilation for workplace as well as any area where vapors may migrate or be vented. Ventilate interior and exterior application areas and occupied spaces adjacent to work areas during application and for 24 hours minimum after application or until vapor concentrations are below the PEL.

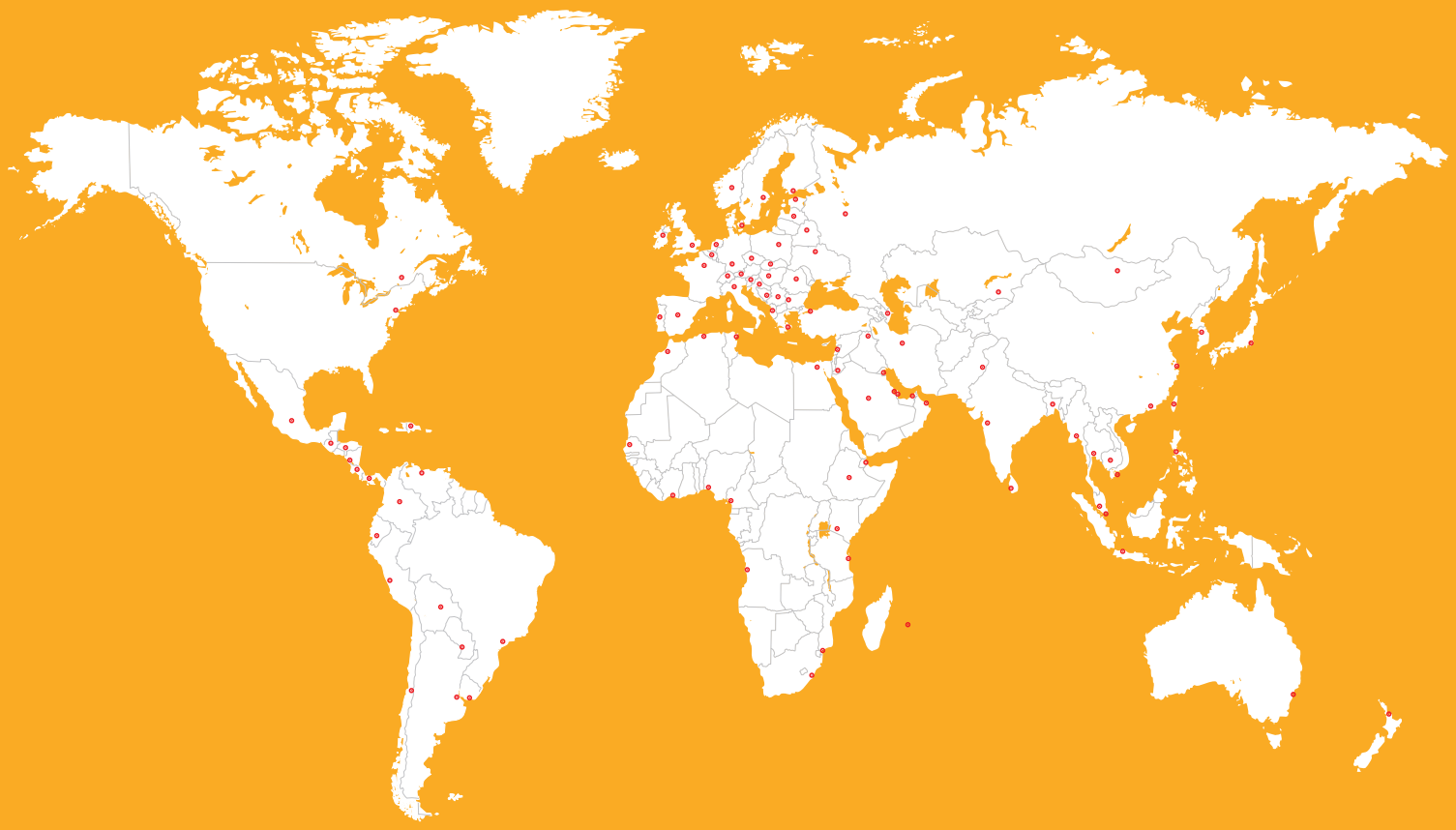
PERSONAL PROTECTION AND EQUIPMENT

Wear safety glasses or chemical goggles, impermeable gloves and long sleeve clothing. Provide a facility at job site for workers to change clothes before leaving for the day. Wash contaminated clothing before reuse. Use NIOSH approved respirators equipped for organic vapors and dust/mist for exposure levels below the PEL and for worker comfort. In confined areas, if spraying, or if vapor concentrations are unknown or above the PEL, a full face air respirator rated for isocyanates should be worn. The concentration of volatiles is found by sampling the air in the workplace and surrounding areas by a certified industrial hygienist or qualified testing laboratory.

NON-WORKER CONSIDERATIONS

Consult with adjacent property managers and owners and take necessary steps to prevent vapors from migrating into their buildings through openings and air intakes. Seal doors, windows, air intakes, elevators and other openings that will allow vapors to migrate into occupied spaces, Consider the need to shut off mechanical fresh air intakes, or applying after work hours, i.e., nights, weekends, holidays, until vapors have dissipated as to avoid exposure to building occupants.

GLOBAL BUT LOCAL PARTNERSHIP



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WE ARE SIKA

With more than 100 years of experience, Sika is a worldwide innovation and sustainability leader in the development and production of systems and products for commercial and residential construction, as well as the transportation, marine, automotive, and renewable energy manufacturing industries.

Sika has offices in 103 countries with over 400 manufacturing facilities and more than 33,000 employees worldwide. With annual sales of CHF 11.24 billion in 2023, our commitment to quality, innovation, and the environment as well as putting our customer's needs first, encompasses why Sika is the global leader in our industries.

SCAN TO LEARN MORE

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