Testing 123 SIKA SPECIFICATION NOTE: This guide specification is provided in CSI Format for use by design professionals for individual construction projects. Modify the text based on your project requirements, and delete products not required. Questions? Call 800-933-SIKA.

SIKA SPECIFICATION NOTE: This guide specification includes test methods, materials and installation procedures for Sikalastic RoofPro Cold Fluid Applied Polyurethane Flashing Membrane System. Sikalastic RoofPro is a fully bonded, elastomeric waterproofing membrane designed for use over most common construction surfaces associated with skylights, including concrete, plywood sheathing, wood blocking, and metal substrates. Sikalastic RoofPro is installed as a 1 ply fully reinforced, self-terminating flashing membrane that will provide waterproof protection at skylight frames and mullions immediately after application. Sikalastic Clearglaze is a single component cold fluid-applied aliphatic polycarbonate polyurethane coating suitable for use over glass, acrylic, and fiberglass skylights.

SECTION 07 56 00

FLUID-APPLIED SKYLIGHT wATERPROOFING

1. GENERAL
   * + 1. RELATED DOCUMENTS
          1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
       2. SUMMARY
          1. Provide a cold-fluid-applied reinforced polyurethane flashing membrane at skylight frames, mullions, and other flashing conditions, and provide a cold fluid-applied clear aliphatic polycarbonate polyurethane coating over glass, acrylic, and fiberglass surfaces.

Work includes substrate preparation.

Work includes glazing of the glass/frame interface.

* + - * 1. Related Work: The following items are not included in this Section and are specified under the designated Sections:

Section 07 60 00 – FLASHING AND SHEET METAL.

Section 07 92 13 – ELASTOMERIC JOINT SEALANTS.

* + - 1. PERFORMANCE REQUIREMENTS
         1. Cold fluid applied reinforced polyurethane flashing membrane installed with a clear aliphatic polycarbonate polyurethane coating is intended to perform as a continuous barrier against liquid water and to flash or discharge to the exterior incidental water. Membrane and coating system is expected to remain exposed and shall accommodate movements of building materials as required with accessory sealant materials at skylight frames and mullions.
         2. Installed flashing membrane and coating shall not permit the passage of water, and will withstand the design pressures calculated in accordance with the most current revision of ASCE 7.
         3. Manufacturer shall provide all primary flashing and clear coating materials that are physically and chemically compatible when installed in accordance with manufacturers current application requirements.
      2. SUBMITTALS
         1. Submittals: Comply with project requirements for submittals as specified in Division 01.
         2. Product Data: For each product.
         3. Shop Drawings: Manufacturer’s standard details and shop drawings for the specified system.
         4. Installer’s Authorization: Installer shall provide written documentation from the manufacturer of their authorization to install the system, and eligibility to obtain the warranty specified in this section.
         5. Manufacturer’ Certification: Certification showing full time quality control of production facilities and that each batch of material is tested to ensure conformance with the manufacturer's published physical properties.
         6. VOC Certification: Manufacturer’s certification that all roofing/waterproofing system products meet current Volatile Organic Compound (VOC) regulations as established by the State in which they are being installed; and stating total VOC content, in grams per liter, for all system components (i.e. primers, adhesives, coatings, etc.).
      3. QUALITY ASSURANCE
         1. Manufacturer’s Qualifications: Manufacturer shall demonstrate qualifications to supply materials of this section by certifying the following:

Membrane Flashing/Coating Manufacturer shall show evidence that the specified membrane and coating has been manufactured by the same organization or direct affiliate for fifteen years.

Membrane Flashing/Coating Manufacturer shall have available an in-house technical staff to assist the contractor when necessary in the application of the products and site review of the assembly.

* + - * 1. Installer’s Qualifications: The Contractor shall demonstrate qualifications to perform the Work of this Section by submitting certification or license by the membrane flashing/coating manufacturer as a trained and authorized applicator of the product the installer intends to use.
        2. Source Limitations: All components listed in this section shall be provided by a single manufacturer or approved by the primary membrane flashing/coating manufacturer.
        3. Materials Compatibility: All materials included in the membrane flashing/coating assembly, as well as associated materials applied beneath the membrane flashing/coating assembly shall have been tested and verified to be compatible.
        4. Final Inspection: Manufacturer’s representative shall provide to the Architect a comprehensive site visit report after the completion of the membrane flashing/coating system.
        5. Applicable Regulations: Comply with local code and requirements of authorities having jurisdiction. Do not exceed VOC regulations as established by the State in which they are being installed; including total VOC content, in grams per liter, for all system components (i.e. primers, adhesives, coatings, and similar items).
        6. Roofing Terminology: Refer to ASTM D1079 and the glossary of the National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual for definitions of roofing/waterproofing terms related to this section.
      1. PRE-INSTALLATION CONFERENCE
         1. Prior to scheduled commencement of the membrane flashing/coating installation and associated work, conduct a meeting at the project site with the installer, architect/consultant, owner, manufacturer’s representative and any other persons directly involved with the performance of the Work. The Installer shall record conference discussions and to include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.
      2. DELIVERY, STORAGE AND HANDLING
         1. Deliver all membrane flashing/coating materials to the site in original containers, with factory seals intact.
         2. Store all pail goods in their original undamaged containers in a clean, dry location within their specified temperature range.
         3. Do not expose materials to moisture in any form before, during, or after delivery to the site. Reject delivery of materials that show evidence of contact with moisture.
         4. Remove manufacturer supplied plastic covers from materials provided with such. Use “breathable” type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Cover and protect materials at the end of each work day. Do not remove any protective tarpaulins until immediately before the material will be installed.
         5. Materials shall be stored above 55°F (12.6°C) a minimum of 24 hours prior to application
      3. PROJECT CONDITIONS
         1. Weather: Proceed with membrane flashing/coating only when existing and forecasted weather conditions permit. Membrane application can proceed when precipitation is imminent. Sikalastic RoofPro is capable of curing in immersion immediately after application. Visual marks in the form of pock marks may occur if uncured membrane is exposed to heavy rainfall, but is not considered a limiting factor in the performance of the flashing membrane. Ambient temperatures shall be above 41°F (5°C) when applying the membrane flashing/coating system.
         2. All surfaces to receive the membrane flashing/coating system shall be free from visible water, dew, frost, snow and ice. Application of membrane flashing/coating shall be conducted in well ventilated areas.
         3. Membrane Flashing and Coating:

Membrane flashing and coating is not intended to be exposed or in contact with a constant temperature below -22°F (-30°C) or in excess of 176°F (80°C). See technical data sheets for limitations, i.e., hot pipes and vents or direct steam venting.

Specified membrane flashing/coating is non-flammable and VOC compliant. Consult container, packaging labels and Material Safety Data Sheets (MSDS) for specific safety information.

Specified membrane flashing/coating is resistant to gasoline, paraffin, fuel oil, mineral spirits, and moderate solutions of acids and alkalis, acid rain and detergents. Some low molecular weight alcohols can soften. Any exposure to foreign materials or chemical discharges shall be presented to membrane/coating manufacturer for evaluation to determine any impact on the waterproof membrane/coating assembly performance prior to warranty issuance.

* + - * 1. Contractor shall ensure adequate protection during installation of the membrane flashing/coating system.
      1. WARRANTY
         1. Warranty: Provide manufacturer’s standard warranty. Materials warranty shall be for a minimum of one year starting at the date of Substantial Completion. System warranty shall be for the following duration when installed in accordance with manufacturer’s warranty requirements.

Warranty Length: 10 years.

1. PRODUCTS
   * + 1. MANUFACTURER
          1. Basis-of-Design Manufacturer: Sika Corporation, 201 Polito Avenue, Lyndhurst NJ 07071. Toll Free 800-933-SIKA (7452), www.sikausa.com. No substitutions without prior written approval by the Architect.
       2. membrane FLASHING/coating SYSTEM
          1. Fluid-Applied Membrane Flashing/Coating System, 10 Year Warranty: Sika Reemat Premium Reinforcement:

Base Layer Membrane Flashing: Sikalastic 641 Lo-VOC, 50 mils wet film thickness, 32 sf/gal coverage rate approx.

Top Layer Membrane Flashing: Sikalastic 641 Lo-VOC, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

Base Layer Coating: Sikalastic Clearglaze, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

Top Layer Coating: Sikalastic Clearglaze, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

* + - * 1. Fluid-Applied Membrane System, 10 Year Warranty: Sika Fleece 120 Reinforcement:

Base Layer Membrane Flashing: Sikalastic 641 Lo-VOC, 50 mils wet film thickness, 32 sf/gal coverage rate approx.

Top Layer Membrane Flashing: Sikalastic 641 Lo-VOC, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

Base Layer Coating: Sikalastic Clearglaze, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

Top Layer Coating: Sikalastic Clearglaze, 20 mils wet film thickness; 80 sf/gal coverage rate approx.

* + - 1. MEMBRANES AND COATINGS
         1. Base embedment coat and top coat with both Reemat and Fleece reinforcement shall be Sikalastic 641 Lo-VOC by Sika Corp, a single component, cold, fluid applied, moisture triggered, aliphatic, polyurethane base coat membrane.
         2. Base coat and top coat membranes shall be low in VOC’s, and be a one component elastomeric polyurethane membrane that may be brush or roller applied. Membrane shall have the following physical properties and conforms to ASTM D7311-07: Standard Specification for Liquid Applied, Single Component, Moisture-Triggered, Aliphatic Polyurethanes used in Roofing.
         3. Liquid Property Requirements:

Sikalastic 641 Lo-VOC:

VOC Content, ASTM D-2369-81: < 50 g/l

Volume Solids, ASTM D2697: 89% minimum.

Weight Solids: ASTM D1644: 92% minimum.

Sag Resistance, ASTM D4400: No sag at 700 micrometers (0.028 in. / 28 mil)

* + - * 1. Film Physical Property Requirements:

Tensile Strength (Tension): ASTM D412: Minimum 1.86 MPa (270lb/in2)

Elongation: ASTM D412 : MIN 200%.

Accelerated Weathering FL/UV – 5000 Hours, ASTM G 154, No cracking or checking.

Water Vapor Transmission, Permeability / Permeance: ASTM E96: Maximum 8.5 gms/m2/ day (0.033 perm-inches).

Flexibility – Mandrel Bend, ASTM D522: Pass, no cracking or flaking.

Tear Resistance, ASTM D625: Minimum 5.8 kN/m (33 lbf/in)

Indentation Hardness, ASTM D2240: 82 Durometer Units (+/- 5 units)

Dynamic Puncture Resistance, ASTM D5635: Minimum 15 joules (357 ft.poundals)

Static Puncture Resistance, ASTM D5602: Minimum 20.7 kg. (45.5 lbs.)

* + - 1. MEMBRANE FLASHING REINFORCEMENT - FIBERGLASS
         1. Reinforcement for the membrane flashing shall be Sika Reemat by Sika Corp, a conformable, random strand fiberglass mat specifically designed to provide greater impact resistance and greater resistance to excessive thermal and structural movement while maintaining elasticity and membrane film integrity.
      2. MEMBRANE FLASHING REINFORCEMENT - POLYESTER
         1. Reinforcement for the membrane flashing shall be Sika Fleece by Sika Corp., a non-woven, needle-punched polyester fleece specifically designed to provide greater impact resistance and greater resistance to excessive thermal and structural movement while maintaining elasticity and membrane film integrity.
      3. membrane flashing reinforcement – supplemental
         1. Supplemental reinforcement of the membrane flashing shall be Sika Flexitape Heavy by Sika Corp, a nylon mesh specifically designed for local reinforcement of the membrane flashing at structural cracks, expansion joints, horizontal to vertical transitions, and transitions between dissimilar materials.
         2. Supplemental reinforcement of the membrane flashing shall be Sika Joint Tape SA by Sika Corp, a polymer backed self-adhering membrane with a polyester fleece facer specifically designed for local reinforcement of the membrane flashing at structural cracks, horizontal to vertical transitions, and transitions between dissimilar materials.
      4. SKYLIGHT Clear COATING
         1. Skylight coating shall be Sikalastic Clearglaze, an aliphatic polycarbonate polyurethane clear coating specifically designed to be the skylight substrate primer for the membrane flashing, and to be a protective coating for glass, acrylic and fiberglass skylight substrates.
         2. Film Physical Property Requirements (Typical):

Tensile Strength (Tension): 350 psi

Elongation: 250%.

Accelerated Weathering UV/Condensation – 5000 Hours, ASTM G 53: No deterioration, clarity retained.

Tear Resistance: 2600 psi

Dry Adhesion to Glass: Elcometer Bond: >425 psi

* + - 1. FILLET BEAD AND PENETRATION SEALANT
         1. Sealant for fillet bead applications and membrane penetrations shall be Sikaflex® 11FC by Sika Corp., a one part polyurethane sealant suitable for fillet bead transition compound to be applied prior to the installation of the membrane system at changes in substrate direction, sealing cracks in the substrate and penetrations of the membrane flashing system.
      2. GLAZING SEALANT
         1. Glazing sealant shall be Sikaflex Hyflex 150 LM by Sika Corp., a one part low modules hybrid sealant suitable for sealing the skylight/frame and skylight/mullion interface.
      3. PRIMERS
         1. Metal primer shall be Sikalastic EP Primer/Sealer by Sika Corp., a two-component, cyclo-aliphatic, amine cured material with a high level of corrosion resistance for metal surfaces, chemically treated wood, and most existing roofing membranes.
         2. Primer for concrete and masonry shall be Sika Concrete Primer by Sika Corp., a rapid curing, high solids, solvent based polyurea primer designed for sealing cementitious and masonry substrates. Available in both single-component and two-component formulations.
         3. Membrane over-coating primer shall be Sika Reactivation Primer by Sika Corp., a single component polyurethane based primer specifically designed for the reactivation of existing Sikalastic waterproofing system applications prior to membrane over-coating.

1. EXECUTION
   * + 1. EXAMINATION
          1. Verify that surfaces and conditions are ready to accept the Work of this section. Notify Architect in writing of any discrepancies. Commencement of the Work in an area shall mean Installer’s acceptance of the substrate.
          2. Surfaces shall be sound, dry, clean and free of oil, grease, dirt, or other contaminants. Fill voids and gaps in substrate to provide an even plane.
       2. Skylight PREPARATION
          1. Ensure all preparatory Work is complete prior to applying membrane flashing.
          2. Anchor loose and gapped flashing edges by appropriate means such as drilled anchors, non-asphaltic adhesives, and self-adhering butyl rubber tape with fleece upper surface to ensure a tight edge condition with no gapping. Seal all holes, cracks, joints and gaps in all flashing details flush with Sikaflex 11FC sealant or Sika Hyflex 150LM sealant.
          3. Power tool clean all metal flashings and mullions to remove coatings and any loose oxide surface conditions leaving bare metal, per SSPC SP3 or SP11.
          4. As required, remove all mullion caps and torque the mullion screws/bolts to manufacturer’s specifications, then reinstall the mullion caps.
          5. Remove all deteriorated wet or dry glazing as required and apply Sika Hyflex 150LM sealant along the skylight/frame and skylight/mullion interface to seal and provide a sealant coving for smooth membrane flashing application.
          6. Apply Sikalastic 11FC sealant over all protruding fastener heads to allow for a smooth membrane flashing application.
          7. Ensure that all skylight drainage systems are in working order, free of all debris.
          8. Clean all exposed surfaces to be coated with a biodegradable cleaner/degreaser to remove contaminants. Solvent wipe with denatured alcohol and allow surfaces to dry thoroughly.
          9. All surfaces shall be blown clean using an oil-less air compressor to remove any remaining loose debris.
       3. SKYLIGHT MEMBRANE FLASHING APPLICATION
          1. Apply Sikalastic EP Primer by brush or roller onto all cleaned and prepared metal mullions and flashings to the edge of the previously applied Sika Hyflex 150LM sealant. Application shall be at a coverage rate not to exceed 250 sf/gallon on a smooth surface. Allow the primer to cure tack-free.
          2. Immediately remove any wet primer from skylight glass surfaces by means of a denatured alcohol solvent wipe.
          3. Tape off a clean straight line on the glass/acrylic/fiberglass (skylight glass) out a minimum of 2” from the edge of the prepared, primed flashing/mullion. Apply a 20 mil WFT coat of Sikalastic Clearglaze by brush to the skylight glass as a primer for the Sikalastic membrane flashing and allow to cure tack-free. Remove tape immediately after Sikalastic Clearglaze application.
          4. Tape off a clean straight line on the skylight glass out a minimum of 2” from the edge of the prepared, primed flashing/mullion. Apply the Sikalastic resin embedment coat by brush or roller. Material shall be uniformly applied onto the clean, dry, sound and primed substrates to achieve a minimum wet film thickness of 50 mils at a coverage rate of 32 sf/gallon.
          5. Immediately lay in precut lengths of Reemat Premium or Fleece 120 reinforcement into the wet Sikalastic resin embedment coat and use a brush or roller to saturate and embed the reinforcement so that it conforms to the mullion/flashing profile without voids or air pockets. Add additional material if necessary to ensure that the reinforcing is fully saturated without any visible pinholes or tenting. Minimum overlap of the reinforcement mesh shall be 2” for Reemat Premium, and 3” for Fleece 120.
          6. Reinforced membrane flashing shall extend 1-1/2” minimum onto the skylight glass surface, with the resin applied to the tape.
          7. For Reemat Premium applications, remove tape immediately and allow resin to dry tack-free, typically overnight. Retape off a clean straight line on the skylight glass along the edge of the membrane flashing. Apply the Sikalastic resin sealing coat by brush or roller. Material shall be uniformly applied onto the reinforced resin embedment coat to achieve a minimum wet film thickness of 20 mils at a coverage rate of 80 sf/gallon. Remove tape immediately following application of resin sealing coat.
          8. For Fleece 120 reinforcement applications, immediately apply the Sikalastic resin sealing coat by brush or roller. Material shall be uniformly applied onto the reinforced resin embedment coat to achieve a minimum wet film thickness of 20 mils at a coverage rate of 80 sf/gallon. Remove tape immediately following application of resin sealing coat.
          9. Immediately remove any wet resin from skylight glass surfaces by means of a denatured alcohol solvent wipe.
       4. skylight glass clearglaze application
          1. All skylight glass surfaces to be coated shall be thoroughly cleaned and degreased with denatured alcohol. A vinegar wash may be necessary where silicone caulks have been present to ensure that all silicone residuals have been removed. Other methods of cleaning may be required to ensure that the glass is as clean as possible before the Clearglaze application.
          2. For severely weathered and deteriorated fiberglass panels, the sanding and removal of glass fibers may be required prior to Clearglaze application.
          3. Apply the first Sikalastic Clearglaze coat using a foam roller at a wet film thickness of 20 mils at a coverage rate of 80 sf/gallon. The Sikalastic Clearglaze shall terminate onto the Sikalastic membrane flashing a minimum of 2” or until the Clearglaze to Sikalastic membrane flashing termination is in a vertical position, completely sealing the edge of the Sikalastic membrane flashing. Allow to cure tack-free.
          4. Solvent wipe the first Sikalastic Clearglaze coat with denatured alcohol and allow all solvent to flash off.
          5. Apply the second Sikalastic Clearglaze coat using a foam roller at a wet film thickness of 20 mils at a coverage rate of 80 sf/gallon. The Sikalastic Clearglaze shall terminate onto the Sikalastic membrane flashing a minimum of 2” or until the Clearglaze to Sikalastic membrane flashing termination is in a vertical position, completely sealing the edge of the Sikalastic membrane flashing. Allow to cure tack-free.
       5. MEMBRANE FLASHING SUBSTRATE PREPARATION
          1. If specified, extend the membrane flashing from the skylight frame onto the surrounding substrate. Acceptable substrates include concrete, concrete block, brick, solid wood and plywood sheathing, metal, and most existing roofing/waterproofing materials.
          2. At all inside corners, gaps or voids at the juncture of the deck and skylight curb apply a minimum 3/4 inch fillet bead of Sikaflex 11FC polyurethane sealant and allow to skin over prior to installing the membrane flashing.
          3. At all moving cracks, moving joints between dissimilar materials, and similar conditions, create a minimum 1 inch wide bond break utilizing bond breaker tape, centered over the crack or joint. Cracks shall be reinforced with Sika Flexitape Heavy set in Sikalastic resin following primer application.
          4. Membrane terminations shall be established prior to project start-up and documented in shop drawings. Terminations shall occur in raked-out mortar joints, saw cut terminations or under installed counter-flashing materials. Self-termination is also acceptable provided that Sikalastic resin extends ¼” – ½” beyond the reinforcement edge.
          5. Use tape lines to achieve a straight edge detail.
          6. Wood and Plywood Sheathing:

Solid wood sheathing shall be tongue & groove, or splined, or covered with a layer or plywood sheathing. Solid wood sheathing shall be not less than 3/4 inch (13 mm) thick.

Plywood sheathing shall be exterior grade, minimum 4 ply, and not less than 15/32 inch (12 mm) thick.

Secure all loose sheathing with screw-type fasteners driven flush to the sheathing surface.

Preservatives or fire retardants used to treat the decking shall be compatible with membrane flashing materials.

All joints in wood decks shall be sealed with Sikaflex 11FC sealant, and shall be reinforced with Sika Flexitape Heavy set in Sikalastic resin or Sika Joint Tape SA following primer application.

Sheathing must be clean and dry prior to membrane flashing application.

* + - * 1. Structural Concrete and Masonry Surfaces:

Concrete shall be rated at 3000 psi or greater. Gypsum-based fill is not acceptable. Mechanically prepare concrete surface in accordance with CSP 3-4. Moisture content shall be 4% or less when measured with a Tramex Concrete Moisture Encounter meter.

Concrete block and brick masonry joints shall typically be struck flush if joint depth exceeds 1/8”.

Knock off any fins or protrusions to achieve a flush surface. Fill spalls, bugholes, areas of missing mortar, and other surface defects with Sikaquick 1000 repair mortar or Sikaflex 11FC sealant as appropriate.

Curing agents shall be completely removed from the substrate by grinding, scarifying, or other mechanical means.

Concrete and masonry surfaces shall be low-pressure (5,000 psi or less) power-washed in accordance with ICRI Guideline No. 03732: Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays to remove all dirt, debris or surface contamination that would compromise bonding of the specified roofing/waterproofing membrane system. Remove oil or grease with solvents, or detergent and water. Rinse surface clean of remaining cleaning agents.

* + - * 1. Metal Surfaces:

Metal surfaces shall be cleaned by power tool cleaning (SSPC SP-3 or SP-11) to remove corrosion deposits back to a clean, bright metal followed by a solvent wipe prior to application of the specified primer.

* + - * 1. Existing Membranes:

Generally, existing mineral-surfaced cap sheets and modified bitumen membranes, and existing EPDM, PVC and TPO single ply membranes are acceptable substrates when the appropriate primer is used.

Pressure wash the roof membrane to remove all dust, dirt and debris from the surface.

Conduct an adhesion peel test to confirm acceptable adhesion and to assist in the selection of the appropriate primer. An acceptable peel adhesion value is 8 pli or as accepted by the membrane flashing manufacturer.

* + - 1. SUBSTRATE PRIMING FOR MEMBRANE FLASHING
         1. Concrete, Masonry, and Wood:

Mix and apply specified primer for concrete/masonry/wood surfaces by brush or roller at the application rate shown on the technical data sheet. Porous, rough or absorbent surfaces will decrease coverage rates.

Allow to cure and dry in accordance with manufacturer’s technical data sheets.

* + - * 1. Metal:

Mix and apply specified primer for metal surfaces to clean and prepared metal surfaces by brush or roller at the application rate shown on the technical data sheet to achieve an overall wet film thickness of 6-8 mils. High porosity and roughness of the substrate will decrease coverage rates.

Allow to cure and dry in accordance with manufacturer’s technical data sheets.

* + - * 1. Existing Membranes:

Mix and apply specified primer for existing membrane surfaces by brush or roller to clean and prepared existing membrane surfaces at a maximum coverage rate of 250 sf/gallon. Aggregate-surfaced membranes will decrease coverage rates by up to 50%.

Allow to cure and dry in accordance with manufacturer’s technical data sheets.

* + - 1. MEMBRANE FLASHING LOCALIZED REINFORCEMENT
         1. Reinforcement of Cracks, Plywood Joints, and Base/Curb Flashing Transitions:

For all locations where the specified membrane system is to be applied directly to the substrate surface, provide reinforcement of cracks and joints prior to applying the specified membrane system

For all moving cracks and joints, create a minimum 1 inch wide bond break centered over the crack or joint by applying bond break tape centered over each crack or joint.

For all non-moving cracks and joints, rout and seal with Sikaflex polyurethane sealant.

For all horizontal-to-vertical transitions, provide a ¾” x ¾” Sikaflex polyurethane sealant cant.

Following primer application, apply a minimum of a 3 inch wide strip of Sika Joint Tape SA directly to the substrate, or alternatively Flexitape Heavy membrane reinforcement set into a bed of Sikalastic liquid resin. Back roll reinforcement to fully embed reinforcement into the wet liquid resin. Add more liquid resin as needed to fully embed the reinforcement.

Ensure reinforcement is not in tension during embedment.

* + - 1. COLD FLUID APPLIED MEMBRANE FLASHING APPLICATION
         1. Install membrane flashing in accordance with current technical data sheets and in accordance with Part 2 Section 2.2.
         2. Apply base embedment coat to horizontal deck and vertical wall surfaces by brush or with 1/2 inch – 3/4 inch nap roller to achieve a continuous and uniform minimum wet film thicknesses as specified in Part 2 Section 2.2. For fleece application, approximately 2/3 of the total resin shall be applied as the base embedment coat.
         3. Immediately lay specified conformable membrane reinforcement into the wet base embedment coat. Reemat reinforcement is typically precut before application; Fleece reinforcement is typically precut at flashings only before application.
         4. Apply pressure to the membrane reinforcement with a roller as appropriate to fully embed and saturate the membrane reinforcement into liquid roofing/waterproofing material. Remove air pockets from under the membrane by rolling them out.
         5. Apply additional liquid material as required to ensure the membrane reinforcement is fully embedded and has conformed to the substrate without tenting or visible pinholes.
         6. Overlap sheets of Reemat membrane reinforcement a minimum of 2 inches. Overlap sheets of Fleece membrane reinforcement a minimum of 3 inches.
         7. Extend membrane flashing a minimum of 6 inches onto adjacent wall/deck/existing membrane surfaces in accordance with project details and specifications.
         8. When using fiberglass mat reinforcement, allow the base embedment coat to fully cure dry prior to the placement of resin top coat.
         9. When using polyester fleece reinforcement, immediately apply the resin top coat wet-on-wet.
         10. Apply top coat by nap roller or brush to achieve a continuous and uniform minimum wet film thickness as specified in Part 2 Section 2.2.
         11. Install all flashings in accordance with manufacturer’s construction details.
      2. Flashing PENETRATIONS through membrane flashing
         1. Clean, prepare and prime penetration surfaces ready to receive membrane flashing applications. Ensure that penetrations are secured to prevent movement.
         2. Penetration flashings typically consist of two components. A vertical flashing component extends up the penetration and is torn (if Reemat reinforcement) or finger cut (if fleece reinforcement) at the bottom so that it can be extended horizontally onto the deck/substrate. A horizontal flashing component covers all of the tears/finger cuts and extends vertically up the penetration. The intent is to achieve a 2-3 inch overlap of the two flashing components.
         3. Install all penetration flashings in accordance with manufacturer’s construction details.
      3. CLEAN-UP
         1. Work areas are to be kept clean, clear and free of debris at all times. Trash, waste, and/or debris shall be removed from the work area on a daily basis.
         2. All tools and unused materials shall be collected at the end of each workday and stored properly and protected from exposure to the elements.
         3. Dispose of or recycle all trash and excess material in a manner conforming to current EPA regulations and local laws.
         4. Following project completion, clean and restore all damaged surfaces to their original condition. Make sure that any drains and gutters are not clogged.

END OF SECTION

The preceding specifications are provided by Sika Corporation as a guide for informational purposes only and are not intended to replace sound engineering practice and judgment and shall not be relied upon for that purpose. **Sika Corporation makes no warranty of any kind, either express or implied, as to the accuracy, completeness or the contents of these guide specifications**. Sika Corporation assumes no liability with respect to the provision or use of these guide specifications, nor shall any legal relationship be created by, or arise from, the provision of such specifications **SIKA SHALL NOT BE RESPONSIBLE UNDER ANY LEGAL THEORY TO ANY THIRD PARTY FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING FROM THE USE OF THESE GUIDE SPECIFICATIONS.** The specifier, architect, engineer or design professional or contractor for a particular project bears the sole responsibility for the preparation and approval of the specifications and determining their suitability for a particular project or application.

Prior to each use of any Sika product, the user shall always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Material Safety Data Sheet which are available at www.sikausa.com or by calling (800) 933-7452. Nothing contained in any Sika 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 Technical Data Sheet, product label and Material Safety Data Sheet prior to product use.