VERSIFLEX PVC

G U I D E - S P E C

Fully Adhered Roofing System

January 2025

This **GUIDE-SPEC** is a brief outline of Versico's VersiFlex™ Adhered Roofing System requirements and is intended for use as a submittal with a bid package. Specifiers and Versico Authorized Roofing Contractors must comply with the VersiFlex Specification prior to design or bid.

PART I GENERAL

1.01 DESCRIPTION

The VersiFlex Adhered Roofing System incorporates maximum 10' wide, 50-, 60- or 80-mil thick Polyester or Fiberglass reinforced VersiFlex Polyvinyl Chloride (PVC) membrane (white, gray, light gray, slate gray and tan) OR 10' wide 50-, 60- or 80-mil thick Polyester Reinforced VersiFlex KEE HP (High Performance) membrane (white, gray, light gray, slate gray and tan). Versico Insulation is mechanically fastened to the roof deck or secured with an approved adhesive and the membrane is fully adhered to the substrate with VersiFlex Low VOC Bonding Adhesive, Hydrobond Water-Based Adhesive or CAV-GRIP PVC Aerosol Contact Adhesive. Adjoining sheets of membrane are overlapped and joined together with a minimum 1-1/2" wide heat weld.

1.02 QUALITY ASSURANCE

A. This roofing system must be installed by a Versico Authorized Contractor in compliance with shop drawings as approved by Versico.

B. Upon request, an inspection shall be conducted by a Field Service Representative of Versico to ascertain that the membrane roofing system has been installed according to Versico's published specifications and details applicable at the time of bid. This inspection is to determine whether a warranty shall be issued. It is not intended as a final inspection for the benefit of the owner.

C. For specific code approvals achieved with this system, refer to Versico's PVC Code Approval Guide, DORA (Directory of Roof Assemblies), FM Approvals or UL Fire Resistance Directory for Roofing Materials and Systems.

1.03 SUBMITTALS

A. To ensure compliance with Versico's minimum warranty requirements, the following projects should be forwarded to Versico for review prior to installation, preferably prior to bid.

1. Air pressurized buildings, canopies, and buildings with large openings, cold storage buildings or freezer facilities, adhered roofing system projects over 100' in height or projects where the PVC membrane is expected to come in direct contact with petroleum-based products, waste products (i.e., grease, oil, animal fats, etc) and other chemicals.

B. Shop drawings must be submitted to Versico by the Versico Authorized Roofing Contractor along with a completely executed Copy-A – Job Approval Request for approval. Approved shop drawings are required for inspection of the roof and on projects where on-site technical assistance is requested.

1.04 GENERAL DESIGN CONSIDERATIONS

A. It is the responsibility of the building owner or his/her designated representative to verify structural load limitation. In addition, a core cut may be taken to verify weight of existing components when the roofing system is to be specified on an existing facility.

B. On new construction projects, especially in cold climate regions, moisture generated due to the construction process could adversely impact various components within the roofing assembly if not addressed. Refer to Design References DR-01 "Construction Generated Moisture" included in the Versico Technical Manual.

C. On structural concrete decks, when a vapor retarder is not used, gaps in the deck along the perimeter and around penetrations must be sealed along with vertical joints between tilt-up panels, if present, to prevent infiltration of hot humid air and possible moisture contamination resulting from condensation. This is specifically important when adhesive is used to attach the roof insulation.

CAUTION: If left unaddressed, collected moisture could weaken insulation boards and facers resulting in a blow-off or increase the probability of mold growth.

VERSICO ROOFING SYSTEMS

D. Vapor Retarders

1. Versico does not require a vapor retarder for the protection of the membrane; however, it should be considered by the specifier for the protection of the roofing assembly (i.e. primarily insulation, underlayment and adhesives). The following criteria should be considered by the specifier:

   a. Use of a vapor retarder to protect insulation and reduce moisture accumulation within an insulated roofing assembly, should be investigated by the specifier.

   b. In the generally temperate climate of the United States, during the winter months, water vapor flows upward from a heated, more humid interior toward a colder, drier exterior. Vapor retarders are more commonly required in northern climates than in southern regions, where downward vapor pressure may be expected and the roofing membrane itself becomes the vapor retarder.

1.05 WARRANTY

Table I **Adhered Membrane Systems Warranty Options**

Years	Thermoplastic Membranes (VersiFlex PVC/KEE HP PVC)				
	55, 72, 80 or 90 mph	100 mph	110 to 120 mph	Minimum Membrane Thickness (4)	Additional Puncture Coverage
	Adhered	Adhered	Adhered		
5,10, or 15 year	√	√	√	VersiFlex PVC/KEE HP PVC 50-mil (3)	Not Available - 80-mil Membrane Required
20 year	√(2)	√	√	VersiFlex PVC 60-mil OR VersiFlex KEE HP PVC 50 mil (3)	Not Available - 80-mil Membrane Required
25 year (5)	√	√	N/A	VersiFlex PVC 80-mil OR VersiFlex KEE HP PVC 60-mil (1)(3)	Available – See Below
30 year (5)	√	√	N/A	VersiFlex KEE HP PVC 80-mil (1)(3)	Available – See Below

Notes: N/A = Not Acceptable √= Acceptable

(1) Sure-Flex PVC/KEE HP PVC 60- or 80-mil membranes in Slate Gray are limited to Warranties Up to 20 Year.
(2) HydroBond Adhesive may be used for projects with 20 year maximum warranty and wind speed coverage up to 90 mph.
(3) VersiFlex FRS membrane can be used in lieu of VersiFlex Polyester reinforced membrane for Adhered Roofing Systems Only.
(4) All "T-Joints" must be overlaid with appropriate flashing material when using 80-mil membrane.
(5) Enhancements may be required for certain flashing details. Published details must be referenced for applicable requirements.

VersiFlex PVC/KEE HP PVC Membrane

Hail
-1" Dia. Hail Coverage requires a minimum of 60-mil VersiFlex PVC/KEE HP PVC Adhered to cover board.
-2" Dia. Hail Coverage requires 80-mil VersiFlex PVC/KEE HP PVC Adhered to cover board.

Additional Design Requirement:
-Cover board (SecurShield HD, SecurShield HD Plus, SecurShield HD or DuraFaceR Composite, DensDeck Prime, or Securock – Adhered Only).

Puncture
-Minimum 60-mil PVC/KEE HP with Polyester Reinforcement.
-Versico's Accidental Puncture Warranty covers labor hours and material used during the repair. Maximum labor and material hours are dependent upon system design. Refer to the Warranty Availability Quick Reference Guide for coverage.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the job site in the original, unopened containers labeled with the manufacturer's name, brand name and installation instructions.

B. Store VersiFlex membrane on provided pallets in original undisturbed plastic wrap.

C. Job site storage temperatures in excess of 90°F may affect shelf life of curable materials (i.e., adhesives and sealants).

D. When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60°F before use.

E. Do not store adhesive containers with opened lids due to loss of solvent, which will occur from flash off.

1.07 JOB CONDITIONS

A. Refer to Versico Technical Manual for applicable project specific Job Conditions.

PART II PRODUCTS

2.01 GENERAL

The components of this roofing system are to be products of Versico or accepted by Versico as compatible. The installation, performance or integrity of products by others, **when selected by the specifier and accepted by Versico,** is not the responsibility of Versico and is **expressly disclaimed** by the Versico Warranty.

2.02 MEMBRANE

VersiFlex (white, gray, light gray, slate gray and tan) 50-mil (100' long), 60-mil (80' long) or 80-mil (65' long) reinforced Polyvinyl Chloride (PVC) membrane OR VersiFlex KEE HP (white, gray, light gray, slate gray and tan) 50-mil (100' long), 60-mil (80' long) or 80-mil (65' long) polyester reinforced membranes are used for this system. Membrane sheets are 10' and 81" wide. For physical properties of the membrane, refer to Thermoplastic Specification.

2.03 RELATED MATERIALS

Versico Flexible DASH Adhesive, Hydrobond Adhesive, VersiFlex Non-Reinforced Flashing, Reinforced Cover Strips, Cut Edge Sealant, Water Cut-Off Mastic, PVC and KEE HP Membrane Cleaner, One-Part Pourable Sealer, Heat Weldable Walkway Pads, Pre-Molded Inside/Outside Corners, Pipe Flashings, LIQUISEAL Liquid Flashing and Sealant Pockets.

PART III EXECUTION

3.01 GENERAL

A. When feasible, begin the application at the highest point of the highest roof level and work to the lowest point to prevent moisture infiltration and to minimize construction traffic on completed sections. This will include completion of all flashings, terminations and daily seals.

B. Follow criteria outlined in the VersiFlex Specification to prepare the roof deck or the existing substrate prior to application of the new roofing system.

3.02 ROOF DECK CRITERIA

A. The proper substrate shall be provided by the building owner. The structure shall be sufficient to withstand normal construction loads and live loads.

B. Defects in the roof deck must be reported and documented to the specifier, general contractor and building owner for assessment. The Versico Authorized Contractor shall not proceed with installation unless the defects are corrected.

C. Refer to Versico Technical Manual for acceptable decks and the applicable Versico Fasteners (when mechanical attachment of insulation is specified).

3.03 SUBSTRATE PREPARATION

A. On retrofit-recover projects, cut and remove wet insulation, as identified by the specifier, and fill all voids with new insulation so it is relatively flush with the existing surface.

B. For all projects, substrate must be even without noticeable high spots or depressions, and must be free of accumulated water, ice or snow.

C. Clear the substrate of debris and foreign material. Fresh bitumen based roof cement must be removed or concealed.

3.04 INSTALLATION

Refer to the applicable Safety Data Sheets and Technical Data Bulletins for cautions and warnings.

A. **Insulation Attachment**

1. Versico Flexible DASH Adhesive may be specified for insulation securement in full spray or beads with spacing as outlined in the Versico Technical Manual.

2. Versico Fasteners may be used, when specified, to secure Versico Insulation at the specified density outlined in the Versico Technical Manual.

B. **Membrane Installation and Heat Welding**

1. Sweep loose debris from the substrate.

2. Position VersiFlex Membrane over acceptable substrate and fold membrane back so half the underside is exposed.

3. For VersiFlex PVC, apply membrane bonding adhesive as follows:

   a. Apply Sure-Flex Low VOC Bonding Adhesive to the exposed underside of the membrane and the corresponding substrate area with a plastic core medium nap paint roller at the appropriate coverage rate. Allow adhesive to flash-off and roll coated membrane into coated substrate. Avoid wrinkling.

   b. Apply Hydrobond Water-Based Adhesive to the exposed substrate with a roller or airless sprayer at the appropriate coverage rate. HydroBond is designed as a one-sided, “wet” lay-in adhesive with no flash-off time and the adhesive must not dry during the application process. Once the adhesive is applied, roll the membrane in place. Avoid wrinkling.

   c. Apply CAV-GRIP PVC Aerosol Contact Adhesive to the exposed substrate area with supplied spray gun at the appropriate coverage rate. Allow to flash-off and roll membrane into coated substrate. Avoid wrinklingVersico PVC Bonding Adhesive, Aqua Base 120 Bonding Adhesive or Hydrobond Adhesive to the exposed underside of the membrane and the corresponding substrate area with a plastic core medium nap paint roller at the appropriate coverage rate.

4. For VersiFlex KEE HP PVC, apply Low-VOC PVC Bonding Adhesive to the exposed underside of the membrane and the corresponding substrate area with a plastic core medium nap paint roller at the appropriate coverage rate. Allow adhesive to flash-off and roll coated membrane into coated substrate. Avoid wrinkling.

5. Brush down the bonded section of membrane immediately with a soft bristle push broom.

6. Fold back the unbonded half of the sheet and repeat the bonding procedure.

7. Install adjoining membrane sheets in the same manner, overlapping edges a minimum of 2 inches to provide for a minimum 1-1/2" hot air weld. It is recommended that all splices be shingled to avoid bucking of water.

8. Heat weld the membrane sheets a minimum of 1-1/2” with an Automatic Heat Welding Machine.

C. **Additional Membrane Securement**

The membrane must be secured at the perimeter of each roof level, roof section, expansion joint, curb, skylight, interior wall, penthouse, etc., at any angle change which exceeds 2" per horizontal foot and at all other penetrations in accordance with Versico’s published details.

D. **Membrane Flashing**

Flash all walls and curbs with VersiFlex PVC/KEE HP reinforced membrane. Non-Reinforced membrane shall be limited to inside and outside corners, field fabricated pipe seals, scuppers and Sealant Pockets where the use of pre-molded accessories are not practical. Terminate the flashing in accordance with an appropriate Versico Termination Detail.

Versico
P.O. Box 1289, Carlisle, PA 17013
800-479-6832
www.versico.com

Physical properties of VersiFlex Membrane can be referenced in Part II, "Products" of the Thermoplastic Specification.

Attach copies of the applicable Versico Details that pertain to the individual project to complete a bid package submittal.