VERSIFLEECE TPO

G U I D E - S P E C

# VersiFleece® TPO Adhered Roofing System using Bead Applied Flexible DASH Adhesive

January 2025

This **GUIDE-SPEC** is a brief outline of Versico's VersiFleece TPO Adhered Roofing System with Bead Applied Flexible DASH Adhesive and is intended for use as a submittal with a bid package. Specifiers and the Versico Authorized Roofing Contractor must comply with the applicable Sections of Versico's Technical Manual, prior to design or bid.

## PART I GENERAL

### 1.01 DESCRIPTION

**This VersiFleece TPO Adhered Roofing System** incorporates 45, 60 or 80-mil thick VersiWeld (white, gray, tan or Special Color TPO) reinforced TPO membrane laminated to non-woven polyester fleece-backing resulting in a total finished sheet thickness of 100, 115 or 135-mils. The membrane is fully adhered to an acceptable insulation or substrate with Flexible DASH Adhesive applied in beads.

Adjoining sheets of VersiFleece TPO membrane are joined together with a minimum 1-1/2" wide hot air weld.

### 1.02 QUALITY ASSURANCE

A. This roofing system must be installed by a Versico Authorized Roofing Contractor in compliance with drawings and specifications 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 VersiFleece TPO 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 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 Reference 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.

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

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 VersiFleece TPO Adhered Systems Warranty Options**

| Years | Minimum Membrane Thickness | Warranty Wind Speed | | | Additional Hail Coverage | | | |
|---|---|---|---|---|---|---|---|---|
| | | 55 or 72 mph | 80 mph | 90 or 100 mph | 1" Dia. Hail | 2" Dia. Hail | 3" Dia. Hail | 4" Dia. Hail |
| **5,10, or 15 year** | VersiFleece TPO 100-mil | √ | √ | √ | √ | √ (1) | N/A | N/A |
| **20 year** | VersiFleece TPO 115-mil | √ | √ | √ | √ | √ | √ (1) | N/A |
| **25 year** | VersiFleece TPO 135-mil | √ | √ | √ | √ | √ | √ (1) | N/A |
| **30 year** | VersiFleece TPO 135-mil | √ | √ | √ | √ | √ | √ (1) | N/A |

Notes: N/A = Not Acceptable √= Acceptable

(1) Requires Flexible DASH in full coverage or beads spaced at 4" o.c.

## 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. Job site storage temperatures in excess of 90°F may affect shelf life of curable materials (i.e., Flexible DASH Adhesive – Parts A & B, splicing cement, sealants, cleaners, primers, Pourable Sealer, Pressure-Sensitive Flashing and uncured flashing).

C. When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60°F before use. Do not store containers with opened lids due to loss of solvent which will occur from flash off.

D. VersiFleece TPO Membrane should be stored in its original plastic wrap and be covered to protect from moisture. Any moisture absorbed by the fleece-backing must be removed by using a wet-vac system, prior to membrane adhesion.

### 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 as compatible by Versico,** is not the responsibility of Versico and is expressly disclaimed by the Versico Warranty.

### 2.02 MEMBRANE

**VersiFleece TPO 100, 115 and 135 Membrane** incorporates VersiWeld (white, gray, tan or Special Color TPO) reinforced TPO membrane laminated to a 55-mil thick non-woven polyester fleece-backing resulting in a total finished sheet thickness of 100, 115 or 135 mils. For available membrane widths and lengths refer to applicable VersiFleece TPO Specification or Product Data Sheets.

### 2.03 RELATED MATERIALS

A. Flexible DASH Adhesive, Cleaners, Splicing Cement, Sealants, Primers, Flashing, Pressure-Sensitive Flashing, Termination Bars, Versico Insulation, Insulation Fasteners and Water Cut-Off Mastic are required for use with this roofing system. Other Versico products, such as insulation and edgings are also required when a System Warranty is specified.

**Other Products:** Walkway Pads, Pre-Molded Pipe Flashings, Corners and Pourable/Molded Sealer Pockets and LIQUISEAL Liquid Flashing.

## 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 minimize construction traffic on completed sections. This will include completion of all flashings and terminations.

### 3.02 ROOF DECK CRITERIA

A. A 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 Roofing Contractor shall not proceed unless the defects are corrected.

C. When mechanically attaching the insulation with Versico Fasteners and Insulation Plates, refer to VersiFleece TPO Specification for acceptable decks and the applicable Versico Fasteners.

### 3.03 SUBSTRATE REQUIREMENTS

A. The membrane may be adhered with Flexible DASH Adhesive directly over structural concrete, wood decks (new or tear-off). An existing smooth surfaced asphalt built-up roof (Type III or IV Asphalt), modified bitumen, or mineral surfaced cap sheet are also acceptable substrates. Direct application over certain types of cellular or perlite lightweight insulating concrete substrate may also be specified (contact Versico for acceptable lightweight insulating concretes).

B. Acceptable Versico insulations include all types currently approved with Design "A" Adhered Roofing Systems.

C. The substrate must be dry, relatively smooth, free of protrusions, debris, sharp edges or foreign materials and must be free of accumulated water, ice and snow. Cracks or voids in the substrate greater than 1/4" (6 mm) must be filled with a suitable material.

D. On retrofit-recover projects, cut and remove wet insulation as identified by the specifier and fill all voids with new insulation, so that it is relatively flush, prior to installing an approved insulation.

### 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 Adhesion**

1. VersiFleece TPO Membrane shall be adhered to an acceptable substrate with a two component, bead applied, low-rise adhesive supplied by Versico. Flexible DASH Adhesive is applied to the substrate only and the membrane is rolled into the wet adhesive once it has foamed up approximately 1/8" to 3/4" and begins to "string" when touched with a Splice Wipe. Roll the membrane with a 30" wide, 150 pound, segmented steel roller to set the membrane into the adhesive.

2. Adjoining sheets of VersiFleece TPO Membrane are overlapped a minimum of 3" along length of membrane (at selvage edges) in preparation for splicing. At end laps (along width of sheet), membrane shall be butted together and overlaid with a minimum 6" wide Pressure-Sensitive Cured Cover Strip for EPDM or reinforced membrane for TPO.

3. Refer to Versico Technical Manual for alternate attachment methods.

4. **Membrane Splicing of VersiFleece TPO Systems**

Refer to appropriate splicing procedures published in the VersiFleece TPO Specifications.

D. **Flashing**

1. Flashing of standard penetrations and edge conditions shall conform to the details in Versico's VersiFleece TPO or Adhered Roofing System specifications as applicable.

2. Details not depicted in these publications shall be submitted to Versico for review prior to installation.

3. At angle changes along walls, curbs, skylights, etc., VersiFleece TPO membrane must be adhered in DASH Adhesive beads placed directly at the angle change and an additional bead spaced a maximum of 3" away from the first bead (at the angle change).



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**Physical properties of VersiFleece TPO Membrane can be referenced in Part II, "Products" of the VersiFleece TPO Specification. Attach copies of the applicable Versico Details that pertain to the individual project to complete a bid package submittal.**