



G U I D E - S P E C

Re-Roofing Existing Modified Asphalt System With FleeceBACK™ Adhered Roofing System

January 2023

This **GUIDE-SPEC** describes Re-Roofing Existing Modified Asphalt System with a FleeceBACK Adhered Roofing System and is intended for use as a submittal with a bid package. For specific installation instructions, Specifiers and the Carlisle Authorized Roofing Applicator must comply with the applicable Sections of Carlisle's Technical Manual.

PART I GENERAL

1.01 DESCRIPTION

This **Existing Modified Asphalt System Re-Roofing Option** incorporates a FleeceBACK membrane (Sure-Seal (black) or Sure-White non-reinforced EPDM, Sure-Weld (white, gray, tan or Special Color TPO) reinforced TPO or Sure-Flex PVC (white, gray or tan) laminated to non-woven polyester fleece-backing. The membrane is adhered to an acceptable, aged Existing Modified Asphalt System with Flexible FAST Adhesive applied in extrusions or full spray.

Adjoining sheets of EPDM FleeceBACK membrane are spliced together using 3" or 6" wide factory-applied SecurTAPE™ in conjunction with Primer. Sheets of Sure-Weld and Sure-Flex FleeceBACK 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 Carlisle Authorized Roofing Applicator in compliance with drawings and specifications as approved by Carlisle SynTec.
- B. Upon request, an inspection shall be conducted by a Field Service Representative of Carlisle to ascertain that the membrane roofing system has been installed according to Carlisle'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. Existing code ratings (FM and UL) will remain the same as the existing roofing system. Consult with local FM or UL representative for further information.

1.03 SUBMITTALS

- A. Shop drawings must be submitted to Carlisle by the Carlisle Authorized Roofing Applicator along with a completely executed Notice of Award (Page 1 of Carlisle's Request for Warranty form) 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 the composition of the existing roofing system.
- B. The removal of existing wet insulation and membrane must be specified. The specifier shall select an appropriate and compatible material as a filler for voids created by removal of old insulation or membrane.
- C. On existing modified asphaltic roof where partial removal is specified to remove wet or damaged insulation, priming the structural deck, with a Carlisle primer, is required where residual asphalt is present to ensure adequate adhesion of the new insulation. In lieu of priming and the use of insulation adhesion, insulation used to fill voids or to replace wet sections may be mechanically fastened.



Existing Asphaltic Roofing Materials	
Smooth BUR	Yes (1)
Gravel BUR	Yes (2) / No (6)
Mineral Cap Sheet	Yes
Granular Modified-Bitumen	Yes
Smooth Modified-Bitumen	Yes
Coal Tar Pitch	Yes (3)
Granular Modified Bitumen APP	Contact Carlisle
Smooth Modified Bitumen APP	No
Aluminum-Coated BUR	Yes (4)
Unweathered Asphalt	Yes/No (5)

Table Notes:

(1) Existing Smooth BUR must be Type III or IV asphalt if the (Black) FleeceBACK EPDM, FleeceBACK PVC and KEE HP, or FleeceBACK TPO membrane is to be installed directly without insulation.

(2) A minimum 1/2" HP Recovery Board or insulation is required over properly prepared gravel BUR. FleeceBACK membrane cannot be installed directly over a gravel/slag surface.

(3) An insulation providing the necessary R-value must be specified to prevent the coal tar pitch from softening. FleeceBACK membranes cannot be installed directly to coal tar pitch.

(4) Any loose coatings must be removed by power-washing or by physical abrasion prior to the application of Flexible FAST Adhesive. A test installation over the aluminum-coated smooth BUR is recommended to ensure the aluminum coating is fully adhered.

(5) Splatter, 6" or 12" o.c. beads requires CAV-GRIP III for all applications.

(6) Splatter Application NOT approved

1.05 WARRANTY

FleeceBACK Adhered Systems Recover Warranty Options

Duration of New Warranty	New Membrane Min. Membrane Thickness	Additional Warranty Coverage		
		Accidental Puncture	Hail	
			1" Dia.	2" Dia.
Up to 15 YR	100-mil Sure-Seal/Sure-White/Sure-Weld, 115-mil Sure-Flex OR 105-mil Sure-Flex KEE HP	N/A	√	√(1)(2)
Up to 20 YR (3)(4)	115-mil Sure-Seal/Sure-White/Sure-Weld/Sure-Flex OR 105-mil Sure-Flex KEE HP	16 Hrs (5)	√	√(1)(2)

Notes: N/A= Not Acceptable √= Acceptable

- (1) Not Available with Sure-Flex or Sure-Flex KEE HP
- (2) Requires use of Flexible FAST Adhesive in Full Spray or Beads At 4" O.C.
- (3) Field Assessment by Carlisle local Representative or SRWA (Sustainable Roofing and Waterproofing Alliance) Consultant required, Contact Carlisle.
- (4) In lieu of standard wind speed this assembly can qualify for 72 mph.
- (5) Use of 145-mil Sure-Seal/Sure-White or 135-mil Sure-Weld/Sure-Flex can qualify for 32 hrs.

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 FAST Adhesive – Parts A & B, adhesives, sealants, cleaners, primers, SecurTAPE, 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. FleeceBACK 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 Carlisle 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 Carlisle or accepted by Carlisle as compatible. The installation, performance or integrity of products by others, **when selected by the specifier and accepted as compatible by Carlisle**, is not the responsibility of Carlisle and is expressly disclaimed by the Carlisle Warranty.

2.02 MEMBRANE

FleeceBACK 100, 115, 135 and 145 Membrane incorporates 45-, 60-, or 90-mil thick, Sure-Seal (black) or Sure-White non-reinforced EPDM or 45-, 60- or 80-mil Sure-Weld (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, 135 or 145 mils. Sure-Flex KEE HP (white, gray, light gray, slate gray and tan) FleeceBACK is available in 105, 115 and 135 mils. Sure-Flex PVC (white, gray, light gray, slate gray and tan) FleeceBACK is available in 115 and 135 mils.

For available membrane widths and lengths refer to applicable FleeceBACK Specification or Product Data Sheets.

2.03 RELATED MATERIALS

- A. Flexible FAST Adhesive, Cleaners, Adhesives, Sealants, Primers, SecurTAPE, Flashing, Pressure-Sensitive Flashing, Elastoform Flashing, Termination Bars, Carlisle Insulation, Insulation Fasteners and Water Cut-Off Mastic are required for use with this roofing system. Other Carlisle products, such as metal edgings and copings are also required when a System Warranty is specified.

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

3.03 SUBSTRATE PREPARATION

- A. The FleeceBACK membrane may be adhered with Flexible FAST Adhesive directly over existing Modified Asphaltic Sheet. FleeceBACK EPDM Adhered Systems (Sure-Seal black membrane) may be applied directly to the substrate providing asphalt on existing smooth surfaced built-up roof has a softening point above 185°F (85°C).

Note: Existing Type III or IV smooth asphalt BUR Only

- B. The substrate must be dry, relatively even, free of protrusions, debris, sharp edges or foreign materials and must be free of accumulated water, ice and snow.
- C. Cut and remove wet insulation, as identified by the specifier, and fill all voids with new insulation of type specified so it is relatively flush (+/- 1/4") with the existing surface.
- D. When installing this roofing system over existing granulated surfaced built-up roof, loose granules must be removed by sweeping, blowing or power brooming.

- E. When installing this roofing system over existing gravel surfaced built-up roof, loose gravel must be removed. Power Brooming or Hydro Vacuuming is recommended by Carlisle to remove the loose gravel or dirt, which may trap moisture. Any uneven areas of the substrate must be leveled to prevent new insulation from bridging.
- F. Cut and remove all existing flashing materials.
- G. Examine existing system. Cut and remove any crushed or damaged insulation.
- H. A field assessment by Carlisle Representative or SRWA (Sustainable Roofing and Waterproofing Alliance) Consultant may necessitate additional enhancements beyond those listed herein.

3.04 INSTALLATION

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

Caution: Ensure adequate attachment of the existing roofing system (cap and insulation) in order to not jeopardize the wind uplift performance of the newly installed membrane. .

- A. **Any delaminated or blistered areas must be removed and replaced with Carlisle Insulation** of equal thickness. Insulation may be mechanically fastened or adhered with Flexible FAST Adhesive, refer to Carlisle's Technical Manual for fastening density and/or bead spacing.
- I. When loose areas are found in the existing sheet, re-secure as outlined above.
- J. Ensure surface is prepped, cleaned, and ready for adhesive application.
- K. **Membrane Adhesion**

- 1. FleeceBACK Membrane shall be adhered to an aged modified or approved insulation with a two component, extrusion or spray applied, low-rise adhesive supplied by Carlisle. Flexible FAST 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 an HP Splice Wipe. Roll the membrane with a 30" wide, 150-pound segmented steel roller to set the membrane into the adhesive.
- 2. Apply beads at 6" O.C. for field and perimeter when standard wind speed warranty is specified. When 2" diameter hail coverage is required, Flexible FAST must be applied in 4" O.C. beads or Full Spray application.

L. **Membrane Splicing of FleeceBACK Systems**

- 1. Refer to appropriate splicing procedures published in the Sure-Seal/Sure-White, Sure-Weld or Sure-Flex FleeceBACK Specifications.

D. **Flashing**

- 1. All existing loose flashing must be removed prior to the application of new flashing. New membrane flashing must extend above all existing intact flashing but must not conceal weep holes or cover existing through wall counterflashing.

At angle changes along walls, curbs, skylights, etc., for warranties up to 20 years, FleeceBACK membrane must be adhered in Flexible FAST 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) see Detail FB-12A.1 and FB -12B.1.
- 2. Flashing of standard penetrations and edge conditions shall conform to the details in Carlisle's EPDM, TPO or PVC FleeceBACK or Adhered Roofing System specifications as applicable.
- 3. Details not depicted in these publications shall be submitted to Carlisle for review prior to installation.

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