

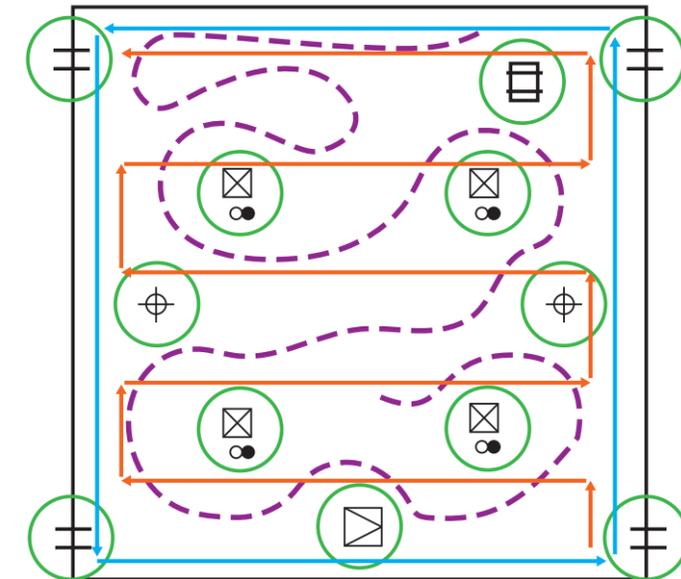


Quick Reference

Guide for Inspecting your system

This guide will illustrate the minimum requirements of a roof inspection and provide a basic understanding of some common details.

Below is a simple roof drawing with penetrations included. It shows the path followed by Carlisle Field Service Representatives (FSRs) when they inspect a roof for warranty.



- Scupper
- Curb
- Pipe
- Pourable Sealer Pocket
- Drain
- Sleeper

- Step 1: Inspect the perimeter.**
Update the roof plan to show the location of all curbs, penetrations, drains, etc.
Focus on securement and termination.
Mark deficiencies on the roof plan as they are found.
- Step 2: Inspect all seams on the roof level.**
Focus on plate placement and proper seaming.
- Step 3: Inspect all curbs, penetrations, drains, etc.**
Focus on one detail at a time, confirming proper securement, termination, and flashing minimums.
- Step 4: Finally, walk across the roof, update areas in need of repair, and perform a general check of the system.**

Note: This drawing is for your records. Applicators should complete repairs by the end of each work day.

When the roof has multiple levels, inspect one level at a time. For larger roof levels, break into smaller sections to eliminate confusion.

NOTE: CARLISLE EPDM PRIMER MUST BE USED WITH ALL PRESSURE-SENSITIVE (PS) PRODUCTS.

Additionally, Lap Sealant is required around all edges of PS Elastoform Flashing®.

LAP SEALANT APPLICATION

1. **Lap Sealant is required at the following locations:**
 - a. Splice tape overlaps.
 - b. Beneath and around the outer edge of 6" x 6" PS T-Joint Covers.
 - c. Where metal edging joints intersect with PS Cured Cover Strip.
 - d. Around all edges of PS Elastoform Flashing, Corners, and Pockets.
 - e. Cut edges of reinforced membrane.
2. **Procedures:**
 - a. Dusted EPDM must be cleaned 1" (25 mm) on either side of the splice edge using Weathered Membrane Cleaner/EPDM Primer and HP Splice Wipes/a clean cloth.
 - b. Weathered Membrane Cleaner is not required when using Kleen EPDM.
 - c. Apply a 5/16" bead of Lap Sealant centered over the splice edge. Coverage rate is 22 lineal feet per tube.
 - d. Feather the Lap Sealant with the specially designed Lap Sealant Tool so the high point or crown is centered over the splice edge.
 - e. Application of Lap Sealant should be completed each day.



IMPORTANT INFORMATION:

If you need assistance, it's only one call away.

Local FSR phone number:

Additional FSR phone number(s):

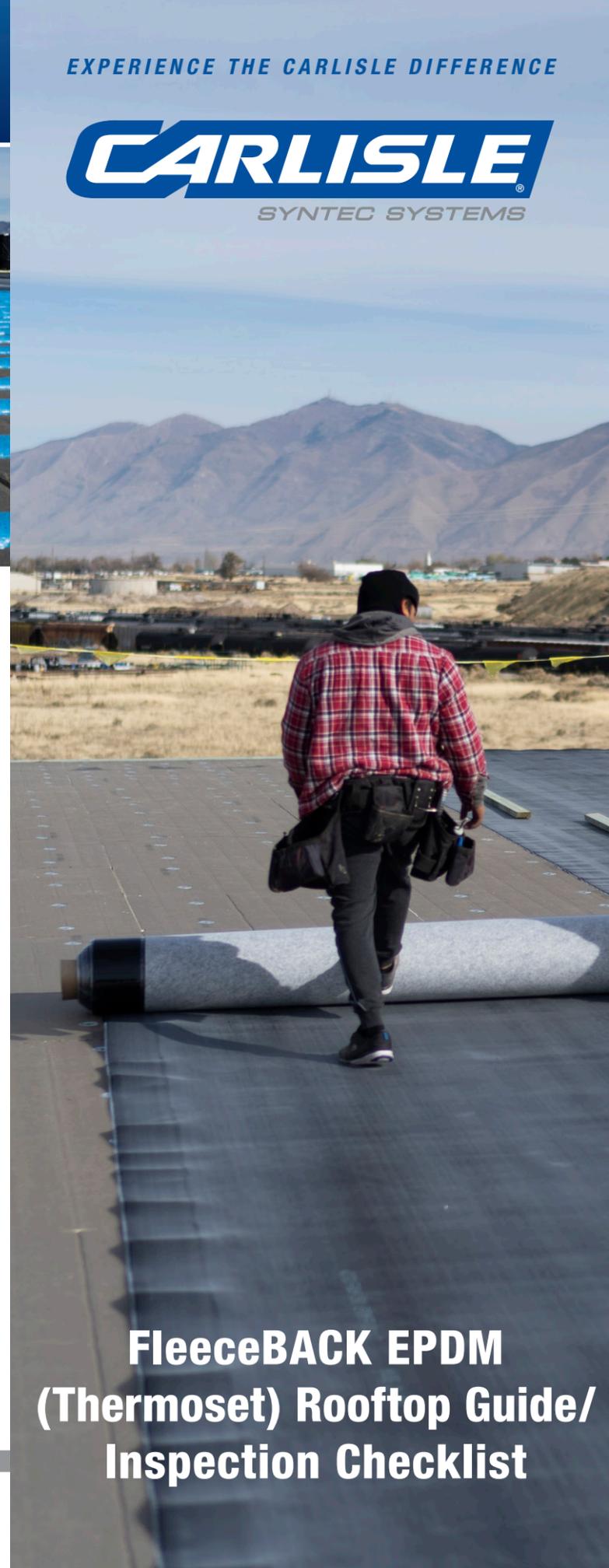
Sales Representative phone number:

Technical Sales Rep phone number:

Distributor phone number(s):

As a reminder, this guide is meant to help with details commonly seen in the field. Not all details are included in this guide. Carlisle applicators are encouraged to call with any questions.

For assistance, please call 1-800-479-6832 and ask for the Technical Warranty Services Department.

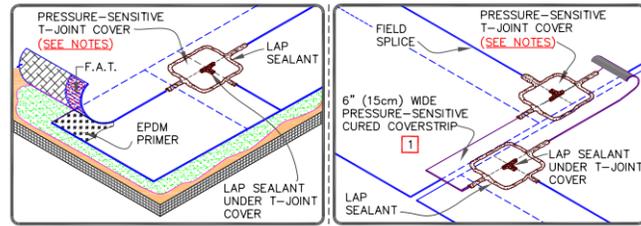


FleeceBACK EPDM (Thermoset) Rooftop Guide/ Inspection Checklist

Common EPDM FleeceBACK Details

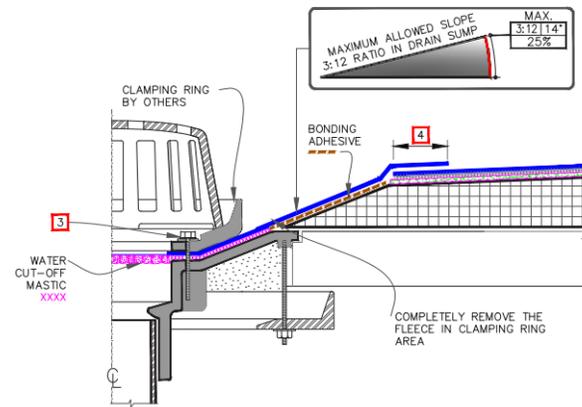
FB-2A/FB MF- 2A Membrane Splice

1. Was 6" PS SecurTAPE™ used on a mechanically fastened seam?
2. Check usage of EPDM Primer and overage/trailing edge.
3. Tape exposure minimum 1/8" to 1/2".
4. Lap Sealant used at cut edges of reinforced membranes.
5. Cured-to-cured splices (T intersection): is an uncured PS T-Joint Cover present with Lap Sealant under and around the T-Joint?
 - a. Walk all splices to verify no fishmouths or other defects.



FB-2A.1 (145mil or 25-30 Year Warranties)

1. Was a 6" x 6" and 12" x 12" uncured PS T-Joint Cover in conjunction with lap sealant used over T Intersections
2. Were all end laps stripped in with 6" PS Cured Coverstrip and overlaid with 12" Uncured Elastoform flashing in conjunction with continuous lap sealant
3. Ensure stripped in end laps were continuously centered

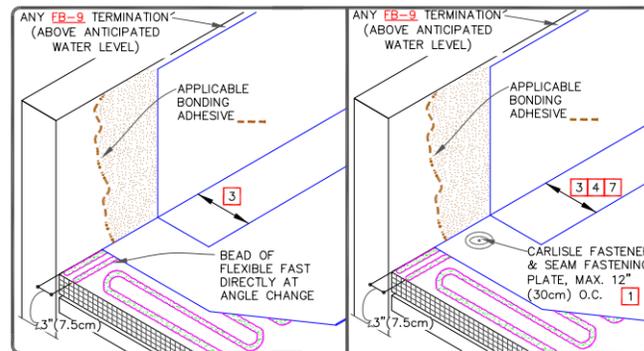


FB-6

1. Are all drain bolts/clamps in place to provide constant compression?
2. Hole in membrane must be larger than drain hole itself, minimum 1/2" from inside the drain ring.
3. Is Water Cut-Off Mastic present between the cleaned drain bowl and the membrane?
4. No seams in drain. Field splices must be located at least 6" outside the drain sump.
5. Drain ring must not be broken/cracked: must be replaced if damaged.
6. Has Fleece-Backing been removed or singed and removed at drain ring to allow direct contact of water cut off mastic to the membrane?

FB-9 Termination

1. If warranty is 15 or more years, termination bar must be present.
 - a. For warranties greater than 20 years, counter-flashing and termination bar must be used.
2. Water Cut-Off Mastic present?
3. Universal Single-Ply Sealant/sealant by others present at top of termination bar?
 - a. If counter-flashing is used, sealant is required at top edge of metal flashing, not on top of termination bar.
4. Termination bar not bent?
5. Fastening of bar shall never exceed 12" OC, and must always be fastened enough to keep constant compression on Water Cut-Off Mastic.
6. Do not wrap termination bar around corners. Apply on hard, smooth surfaces only; not for use on exposed wood.
 - a. See detail U-9E for additional requirements if termination bar is used at tilt-up panel joints.
 - b. Water Cut-Off Mastic must be installed at approximately 10' per tube.
7. Fleece Backing must not be present at areas where Termination bar is being installed. Fleece Backing must be removed or bare back membrane must be used to allow direct contact of water cut off mastic to the membrane surface.



FB-12A and FB-12A.1

1. With 25–30 year warranties angle change securement must be used. Verify fastening.
 - a. Appropriate fastening? No more than 12" OC
 - b. 6" OC if wind speed warranty is greater than 90mph
2. Verify all flashings are properly adhered.
3. If seam is present at angle change, a PS T-Joint Cover is required.
 - a. Lap Sealant is required around the PS T-Joint Cover.
 - b. If warranty is 25-30 years and/or membrane is 145 mil a 6" x 6" and 12" x 12" PS T-Joint Cover in conjunction with lap sealant must be applied.
4. How is membrane terminated?
 - a. See Detail FB-9.

FB-12B

1. Was a double bead of Flexible Fast applied at the angle change?
2. Detail can not be applied with the following conditions:
 - a. 25–30 year warranties
 - b. 90 and greater wind speed warranties.
 - c. Projects with control or expansion joints or anticipated building movement.

FB-15 Inside/Outside Corners

1. Membrane securement or double bead at the angle change present?
2. If used, are plates and fasteners 6"–9" away from inside/outside corner?
3. For 25–30 year warranties Plates and fasteners a minimum 12" OC (6" OC must be used when warranty wind speed is greater than 90mph)
4. Pig ear fold in inside corner:
 - a. PS SecurTAPE present behind fold?
 - b. PS Elastoform Flashing used to cover overlap membrane/pig ear?
 - c. Is Lap Sealant present around PS Elastoform Flashing?
5. When flashing inside or outside corners, use:
 - a. 7" x 9" factory-made uncured Inside/Outside Corners
 - b. When field-fabricating, 9" x 9" PS Elastoform Flashing must be used.

A-27G Insulation Fastening

1. Refer to Carlisle specifications for product data sheets for appropriate bead spacing based upon the building height, warranty term and acceptable substrate.
2. The surface to which adhesive is to be applied shall be dry, free of fins, protrusions, sharp edges, loose and foreign materials, oil and grease. Area should be cleaned with an air blower.
3. Previously unexposed asphalt or residue must be primed with Carlisle CAV-GRIP® III, 702 or 702LV primer.
4. Seal all gaps in the concrete deck with Carlisle 725TR or other suitable material to avoid condensation issues or fill with Carlisle insulation adhesive.
5. At the beginning of the insulation attachment process and periodically throughout the day, check the adhesion of boards to ensure a tight bond is created and maximum contact is achieved.

6. Walk the boards into the adhesive and roll using a 30" wide, 150 pound segmented steel roller to ensure full embedment. If the boards easily slide the Flexible Fast adhesive has not fully met string time.
7. One person should be designated to walk and roll in all boards. Relief cuts may be necessary to allow lifted board to lay flat, or constant weight (10 lbs minimum for 5–15 minutes per lifted area) may be necessary to achieve adequate adhesion.

Tips and Tricks

1. **Adhesive Temperature:** The temperature of Flexible FAST Adhesive must be between 70°F (21°C) and 90°F (32°C), at the time of use. Use blanket heaters and hot boxes when necessary.
2. **Watch for Heat Sinks:** Concrete and metal decks including masonry walls will pull heat away from the adhesive reaction and are good candidates for heated blankets or heated machines. Another technique is to prime the decks with a dark colored primer to help draw heat from the sun.
3. **Back Rolling Membrane:** Roll the membrane using a 30" wide, 150 lb weighted segmented steel roller, to set the membrane into the adhesive.
4. **Back Rolling Insulation:** Walk the boards into the adhesive and roll using a 30" wide, 150 pound segmented steel roller to ensure full embedment. Optimal set up time should be approximately 5 to 7 minutes.
5. **Slipping or Sliding Boards:** If the boards easily slide, string time has not been achieved. Walking on the boards immediately after placement in adhesive can cause slippage/movement until the adhesive has started to set up.
6. **Lifting Boards:** One person should be designated to walk and roll in all boards. Relief cuts may be necessary to allow lifted board to lay flat, or constant weight (a minimum 10 lbs for 5–15 minutes per lifted area) may be necessary to achieve adequate adhesion. Sandbags or weighted buckets are examples of acceptable options.
7. **Un-Weathered Asphalt:** Areas of unweathered asphalt should be primed with CAV-GRIP III, CCW-702, CCW-702LV, CCW-702WB Primer for 6" and 12" bead applications.

Bead Spacing for FleeceBACK Membrane Adhesion

Peak Gust Wind Speed Warranty	Warranty Length in Years					
	5 to 15 years		20 years		25 years (25/30 year)	
	Field	Perimeter*	Field	Perimeter*	Field	Perimeter*
55 MPH	12"	6"	6"	6"	4", SP, FS	4", SP, FS
72 MPH	6"	6"	6"	4", SP, FS	4", SP, FS	4", SP, FS
80 to 120 MPH	4", SP, FS	4", SP, FS	4", SP, FS	4", SP, FS	4", SP, FS	4", SP, FS"

SP= Splatter FS = Full Spray