



# CARLISLE'S **SURE-SEAL**

## Sure-Seal®/Sure-White® EPDM Roof Restoration

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May 2007

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### Details





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## **Sure-Seal<sup>®</sup>/Sure-White<sup>®</sup> EPDM Roof Restoration**

May 2007

Information contained herein is intended to provide building owners, specifiers and roofing contractors with guidelines to properly restore an existing EPDM roofing system and qualify for a warranty extension.

A warranty extension applies only to projects where a Carlisle 10 or 15-year Membrane System Warranty has been issued. Application for a 5 or 10-year warranty extension must be made within 18 months of the warranty expiration date and restoration work must be completed within 120 days of the initial investigation.

### **PART I            GENERAL**

#### **1.01    SCOPE OF WORK**

- A. Proper restoration of an existing EPDM roofing system begins with a thorough evaluation of the existing EPDM membrane, seams, flashings, substrate, and terminations.
- B. To qualify for a warranty extension as outlined in Paragraph 1.04, Warranty Extensions, all existing adhesive seams must be repaired and overlaid with Pressure-Sensitive Flashing material.
- C. Wet insulation, if found, must be replaced with dry material equal in thickness and secured in accordance with Carlisle's specification for the system to be restored.
- D. Protruding fasteners, loose fasteners or bridged flashing must be resecured using appropriate fasteners in accordance with details included as part of this specification. Work will also include the replacement or overlayment of various flashing details included, but not limited to, inside/outside corners, pipes, drains and curbs.
- E. Projects utilizing 45-mil reinforced Sure-Seal (black) and non-reinforced Sure-White (white-on-back) membrane, depending on their condition and the warranty extension specified, may require the application of Carlisle's X-Tenda Coat Coating. Samples of the membrane may be obtained during the initial investigation and forwarded to Carlisle SynTec for analysis.
- F. Cuts, holes, tears, and punctures that will lead to moisture infiltration in the future must be repaired.
- G. Refer to Paragraph 1.04, Warranty Extension, for applicability and restrictions.

#### **1.02    QUALITY ASSURANCE**

- A. A Carlisle Authorized Applicator is required to make all repairs. Work performed shall be in accordance with this specification and is governed by the Authorized Applicator agreement with the manufacturer.
- B. For projects where a warranty extension is required, Carlisle must be contacted to conduct the necessary roof evaluation and determine the extent of the scope of work needed for a specific project.
- C. Restoration requirements outlined by Carlisle during the field investigation must be included in the project specification as the minimum requirements to obtain the warranty extension. Project specifications, however, may extend beyond such requirements.

- D. During the initial inspection, questionable areas and areas where problems may have been encountered should be designated for destruction testing and, if necessary, core cuts can be independently evaluated.
- E. A moisture scan should be performed on roofs with a history of leaks or those where the substrate beneath the membrane may be questionable. Additional core cuts may be necessary to validate moisture scan findings and determine if insulation replacement in certain locations is necessary.
- F. Moisture infiltration can be a result of condensation or wind-driven rain causing moisture to infiltrate through faulty flashing in the cavity walls or HVAC units. It is important not to limit the field investigation to the roofing system, especially on those projects where persistent leaks are a common occurrence.
- G. In addition to the initial inspection by Carlisle to assess the roof condition and to determine the minimum restoration requirement, a final inspection by a Carlisle Field Service Representative must be scheduled upon completion of the restoration work.

### **1.03 SUBMITTALS**

- A. To ensure compliance with Carlisle’s minimum warranty extension requirements, a summary of the restoration work must be submitted to Carlisle outlining the extent of the work performed along with a shop drawing indicating locations where restoration work has been completed. The drawing must also reference the Carlisle details used or include other details, which have been specially designed for the specific project.
- B. The restoration work summary along with shop drawings may be submitted to Carlisle prior to the start of work to ensure discrepancies are remedied.

### **1.04 WARRANTY EXTENSION**

- A. A warranty extension applies only to projects where a Carlisle 10 or 15-year Membrane System Warranty has been issued. Application for a 5 or 10-year warranty extension must be made within 18 months of the warranty expiration date. A Carlisle Building Owner Services representative will evaluate the system for a warranty extension and restoration work must be completed within 120 days of the initial investigation.
- B. In cases where the roof is 18 months beyond the expiration of the original 10-year warranty, there is no opportunity to provide the building owner with a warranty extension. The only option available would be to pursue a separate X-Tenda Coat 5-year System Warranty.
- C. All inspections and necessary repairs must be completed within 120 days of the initial inspection. The warranty will not be effective during the time of inspection, necessary repair period, or subsequent re-inspection.
- D. For warranty extension all uncured flashings must be replaced or overlaid and all adhesive seams must be covered as outlined in Part III.
- E. **A 5 or 10-year warranty extension is available for a charge for the following applications:**

#### **1. Adhered Assemblies**

Projects incorporating Sure-Seal (black) 45-mil or 60-mil non-reinforced EPDM membrane or 60-mil reinforced membrane are eligible for a 5 or 10-year warranty extension.

Projects incorporating 60-mil non-reinforced Sure-White (white-on-black) or 45-mil reinforced Sure-Seal (black) EPDM membrane are only eligible for a 5-year warranty extension unless Carlisle’s X-Tenda Coat Coating is applied (refer to Part III of this specification or the Carlisle X-Tenda Coat Specification for thickness requirements and applicable application procedures).

Regardless of membrane type or thickness, the following adhered assemblies are not eligible for a warranty extension:

- a. Projects where the membrane is installed directly over concrete decks.
- b. Projects where phenolic insulation may have been used within the existing membrane assembly.

## 2. **Ballasted Assemblies**

Projects incorporating 45 or 60-mil non-reinforced Sure-Seal (black) EPDM membrane are eligible for a 5 or 10-year warranty extension.

Projects incorporating 45-mil reinforced Sure-Seal (black) EPDM membrane are not eligible for a warranty extension.

Projects incorporating 60-mil reinforced membrane are limited to a 5-year warranty extension unless otherwise approved by Carlisle.

Regardless of the membrane type or thickness, the following ballasted assemblies are not eligible for a warranty extension:

- a. Inverted membrane assemblies
- b. Ballasted assemblies installed directly over structural concrete or lightweight insulating concrete decks.

## 3. **Mechanically Fastened Assemblies**

Projects incorporating 60-mil Sure-Seal (black) reinforced membrane are eligible for a 5 or 10-year warranty extension.

Projects incorporating 45-mil reinforced Sure-Seal (black) EPDM are only eligible for a 5-year warranty extension unless Carlisle's X-Tenda Coat Coating is applied (refer to Part III of this specification or the Carlisle X-Tenda Coat Specification for thickness requirements and applicable application procedures).

Regardless of membrane type or thickness, the following mechanically fastened assemblies are not eligible for a warranty extension:

- a. Mechanically fastened assemblies with non-reinforced membrane.
- b. Projects where phenolic insulation may have been used within the existing membrane assembly.

- F. For projects where the warranty wind speed coverage specified is greater than that of the original warranty, such projects will be subject to additional enhancements dictated by the specific project conditions and wind zone. Carlisle must be notified of the additional wind speed coverage prior to bidding or performing restoration work.

## **1.05 JOB CONDITIONS**

- A. Comply with OSHA safety regulations during field investigation, the loading and unloading of material, and for the duration of the restoration work. Ladders and temporarily protected surfaces must also be secured in compliance with applicable OSHA regulations.

- B. Avoid unnecessary rooftop traffic to prevent membrane or insulation damage. When necessary, provide temporary protection in frequently accessed areas.
- C. Where core cuts have been taken and in areas where destructive testing has been performed, temporary repairs must be completed as soon as possible to restore the roof to a watertight condition. Do not proceed with destructive testing if inclement weather is expected.
- D. Consult the building owner or his representative on areas designated for loading and unloading to avoid overloading the structure and possible damage to the roofing assembly.
- E. During investigations, specific problems not previously reported to the manufacturer should be identified (i.e., wind damage, excessive fluttering, ballast scouring, or persistent water drips associated with changes in temperature) and reported to Carlisle.
- F. Changes in building occupancy and recent building renovation could impact the performance of the roof system and must be documented and reported on the field investigation report.
- G. Examine the roof surface for signs of excessive ponding to determine if the situation could be eliminated by the use of new tapered insulation or the addition of new drains.

## **1.06 CAUTIONS AND WARNINGS**

- A. Material Safety Data Sheets must be made available at the job site at all times during restoration work.
- B. Exercise caution when walking on wet membrane. Membranes are slippery when wet.
- C. When work is performed on a white membrane, sunglasses, which filter out ultraviolet light, are required because the white surface intensifies sunlight through reflection.
- D. Report areas where the membrane may have become contaminated with animal fat, grease, or other petroleum based products or where the membrane has been exposed to chemicals and solicit Carlisle's recommended repair.
- E. Ensure metal copings, counterflashing and other terminations are well secured and water tight. If new flashing is to be extended beyond the original termination, efforts must be made to ensure weep holes are not concealed or covered.

## **PART II PRODUCTS**

### **2.01 GENERAL**

The components for restoration work 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 CARLISLE PRODUCTS**

#### **A. SURE-SEAL EPDM MEMBRANES**

Cured non-reinforced or reinforced EPDM (Ethylene, Propylene, Diene Terpolymer) compounded elastomer. For use in areas where old membrane is to be removed or overlaid.

1. **Non-Reinforced EPDM Membrane** – Sure-Seal (black) 45 or 60-mil thick and Sure-White (white-on-black) 60-mil thick non-reinforced EPDM membrane; conforms to ASTM D4637, Type I (non-reinforced).

2. **Sure-Tough™ Reinforced EPDM Membrane** – Sure-Seal (black) 45, 60 and 75-mil thick reinforced EPDM membrane; conforms to ASTM D4637, Type II (reinforced).

## B. FLASHING ACCESSORIES

1. **Sure-Seal/Sure-White Pressure-Sensitive Cured Cover Strip:** a 6", 9" and 12" wide by 100' long Sure-Seal or Sure-White 60-mil cured EPDM membrane laminated to a nominal 35-mil cured factory-applied SecurTAPE. The Cured Cover Strip is used for restoration of field seams, T-joints, gravel stop and gutter edge flashings, pre-molded pipe flashings, and field fabricated pipe flashings.
2. **Sure-Seal Pressure-Sensitive Uncured Elastoform® Flashing:** A 9" or 12" wide by 50' long, 60-mil thick **uncured** EPDM Flashing laminated to a 35-mil factory-applied SecurTAPE used for restoration of inside and outside corner flashing as well as alternate material for the restoration of fields seams and T-joints.
3. **Sure-Seal T-Joint Cover Overlayment:** A 40-mil thick, 12" x 12", cured Elastoform Flashing with factory-applied SecurTAPE providing 75-mil of total thickness. This product is used to overlay existing T-Joint Covers.

## C. CLEANERS, PRIMERS, ADHESIVES AND SEALANTS

Refer to Technical Data Bulletins for material coverage rates and proper usage. Prior to the use of any of the products listed below, consult the Material Safety Data Sheets for applicable cautions and warnings.

1. **Carlisle Weathered Membrane Cleaner:** A clear, solvent-based cleaner used to loosen and remove dirt and other contaminants from the surface of exposed EPDM membrane prior to applying a Pressure-Sensitive Cured Cover Strip or SecurTAPE.
2. **Sure-Seal SecurTAPE™:** A 3" or 6" wide by 100' long splice tape used for splicing adjoining sections of EPDM membrane. Complies with the South Coast Air Quality Management District Rule 1168.
3. **Sure-White SecurTAPE:** A 3" wide by 100' long, cream colored splice tape used with Sure-White Systems. Complies with the South Coast Air Quality Management District Rule 1168.
4. **Splicing Cement:** A high-strength, butyl-based contact cement that is used as a primer to prime the surface of **aged** EPDM membrane prior to the application of Pressure-Sensitive Cured Cover Strips or SecurTAPE.
  - a. Sure-Seal EP-95 Splicing Cement: Black splicing cement for use with Sure-Seal (black) Roofing Systems.
  - b. Sure-White Splicing Cement: White splicing cement used with Sure-White (white-on-black) Adhered Roofing Systems.
5. **Sure-Seal HP-250 Primer:** A solvent-based primer used to prepare the surface of **new** EPDM membrane for application of SecurTAPE or Pressure-Sensitive products. This Primer can also be used in conjunction with EP-95 Splicing Cement in lieu of Splice Cleaner.
6. **Lap Sealant:** A black, heavy-bodied material (trowel or gun-consistency) used to seal the exposed edges of EPDM membrane and the Pressure-Sensitive Cured Cover Strip as well as complete various flashing repairs.
  - a. Sure-Seal Lap Sealant: Black sealant for use with Sure-Seal (black) Roofing Systems.

- b. **Sure-White Lap Sealant:** White sealant for use with Sure-White (white-on-black) Roofing Systems.
- 7. **90-8-30A Bonding Adhesive:** A high-strength, yellow colored, synthetic rubber adhesive used for bonding EPDM membrane where insulation is removed and replaced, membrane replacement at blistered areas, wall flashing repairs, and roof drain repairs.
- 8. **Water Cut-Off Mastic:** A one-component, low viscosity, self-wetting, butyl blend mastic used as a sealing agent for the restoration of termination bars, roof drain repairs, and Pre-Molded Pipe Flashing repairs.

#### D. FASTENING COMPONENTS

- 1. **Sure-Seal Pressure-Sensitive RUSS™** (Reinforced Universal Securement Strip): A 6" wide, nominal 45-mil thick clean, cured reinforced EPDM black membrane with 3" wide Factory-Applied SecurTAPE laminated along one edge. Used horizontally or vertically at the base of walls, curbs, etc. on Sure-Seal Roofing Systems.
- 2. **Sure-White Pressure-Sensitive RUSS** (Reinforced Universal Securement Strip): A 6" wide, nominal 45-mil thick clean, cured, white reinforced EPDM membrane with 3" wide Factory-Applied SecurTAPE laminated along one edge. Used horizontally or vertically at the base of walls, curbs, etc. on Sure-White Adhered Roofing Systems.
- 3. **RUSS™** (Universal Securement Strip): A standard 6" wide, 100' long, strip of Sure-Seal (black) reinforced EPDM membrane. Used for membrane securement at the base of walls.
- 4. **HP Polymer Seam Plate:** A 2" diameter plastic barbed fastening plate used with Carlisle HP Fasteners for membrane and Pressure-Sensitive RUSS securement for Mechanically Fastened Roofing Systems over steel roof decks. (Available pre-assembled.)
- 5. **Seam Fastening Plate:** A 2" diameter metal fastening plate used for membrane and RUSS attachment on Mechanically Fastened Roofing Systems over wood or structural concrete decks. Seam Fastening Plates are also used in conjunction with RUSS or EPDM membrane for additional membrane securement on Adhered or Ballasted Roofing Systems. This plate may be used for insulation attachment on Mechanically Fastened Roofing Systems.
- 6. **Insulation Fastening Plate:** A nominal 3" diameter FM approved metal plate used for insulation attachment in conjunction with Sure-Seal Fasteners.
- 7. **Sure-Seal Fasteners**

All Sure-Seal Fasteners listed below can be used with Sure-Seal Roofing Systems. Refer to the applicable specification for specific requirements.

- a. **HP Fastener:** A threaded, black epoxy electro-deposition coated (E-Coat) fastener for use with steel, wood plank, minimum 15/32" thick plywood or minimum 7/16" thick oriented strand board.
- b. **InsulFast Fasteners:** A threaded, Phillips head fastener used with 3" diameter Carlisle Insulation Plates. Used for insulation attachment into steel or wood decks.
- c. **Pre-Assembled ASAP Fasteners:** Carlisle's InsulFast Fastener and pre-assembled 3" diameter Plastic Insulation Plate used for insulation attachment on Adhered and Mechanically Fastened Roofing Systems. Installed using Olympic Fastening Tools.

- d. **CD-10 Concrete Fastener:** A hammer-driven, non-threaded, black epoxy electro-deposition coated (E-Coat) fastener for use with structural concrete decks rated 3,000 psi or greater.
- e. **HD 14-10 Concrete Fastener:** A #14 threaded fastener used for minimum 3,000 psi concrete decks.
- f. **HP-NTB Fastener:** A non-penetrating, plastic fastener and corresponding plate used with lightweight deck substrates such as cementitious wood fiber and gypsum.
- g. **Lite-Deck Fastener:** An oversized diameter metal fastener and associated 3" diameter Lite-Deck metal plate for use on Adhered Roofing Systems to attach insulation to dense gypsum decks.
- h. **HP-X Fasteners:** A heavy-duty #15 threaded fastener with a Phillips head for use primarily on Adhered assemblies where increased pullout resistance is necessary. Used for steel and wood decks.
- i. **HP Purlin Fastener:** A hex-head, threaded, self-drilling, black epoxy electro-deposition coated (E-Coat) fastener used for membrane/RUSS securement into structural purlins (12-18 gauge) in conjunction with Sure-Seal Metal Retrofit Roofing Systems.
- j. **HP Term Bar Nail-In:** A 1-1/4" long expansion anchor with threaded drive pin used for fastening Sure-Seal Termination Bar or Seam Fastening Plates to concrete, brick or block walls. The fastener is set by hammering the drive pin into place.

**E. EDGINGS AND TERMINATIONS**

- 1. **Termination Bar:** A 1" wide and 98-mil thick extruded aluminum bar pre-punched 6" on center which incorporates a sealant ledge to support Lap Sealant and provide increased stability for membrane terminations. Used for restoration of flashing at termination bar.
- 2. **Edgings:** SecurEdge metal fascia, drip edge, and coping products that are Factory Mutual approved and have been tested according to the ES-1 ANSI/SPRI roof edge standard and the International Building Code. Refer to the applicable Carlisle details and installation instructions for specific installation criteria.

**F. OTHER CARLISLE ACCESSORIES**

- 1. **HP Splice Wipes:** Used in conjunction with Weathered Membrane Cleaner to clean the EPDM membrane prior to completing repairs.
- 2. **Hycron® Gloves:** A specially coated glove for protection of hands from irritations and stains during the use of Splice Cleaners, Splicing Cements and Bonding Adhesives.
- 3. **Other Accessories Available:** 6" blade heavy-duty scissors and 2" wide steel hand rollers.

**2.03 OTHER RELATED PRODUCTS**

**A. CLEANING PRODUCTS**

The following products are recommended for cleaning EPDM membrane:

- 1. **Formula 409:** An all-purpose cleaner manufactured by the Clorox Company; can be used for removing dirt and grime from the surface of EPDM roofing membrane.



2. **Lestoil:** A concentrated, heavy duty cleaner manufactured by the Clorox Company; can be used for removing dirt and grime from the surface of EPDM roofing membrane.
3. **Spic And Span:** A low sudsing detergent manufactured by the Spic And Span Company (a division of Prestige Brands, Inc.); can be used for removing dirt and grime from the surface of EPDM roofing membrane.
4. **Tide:** A low sudsing detergent manufactured by Proctor & Gamble; can be used for removing dirt and grime from the surface of EPDM roofing membrane.

## B. **MEMBRANE MARKERS**

The types of markers that are suggested to mark deficiencies on the EPDM roofing membrane:

1. **Quik Stik:** A broad line, smooth marking, fast-drying paint marker manufactured by LA-CO/Markal; use a white marker on black (Sure-Seal) membrane and a colored marker on white (Sure-White) membrane. This is the recommended marker to use.
2. **Valve Action Paint Marker:** A thin line, long-lasting, fast-drying paint marker manufactured by LA-CO/Markal; use a white marker on black (Sure-Seal) membrane and a colored marker on white (Sure-White) membrane. This is the alternative marker to use if the other is not available.

## **PART III RESTORATION PROCEDURES**

### **3.01 GENERAL**

- A. When possible on multiple level roofs, begin the restoration work on the highest level to avoid or minimize construction traffic on completed roof sections.
- B. On projects at high altitudes (6,000' and above), rapid flash off (drying) of Bonding Adhesive and Splicing Cement will occur due to low atmospheric pressure.
- C. For Ballasted assemblies, stone ballast must be properly removed at repair areas. Do not use rakes or shovels for ballast removal because they may damage the EPDM membrane. A gravel pusher or push broom must be used.

Stone ballast must be removed approximately 12" on either of the membrane splice to be repaired.

#### **D. Lifted Adhesive Seams**

If the seam is open or has lifted, pull back the overlapping membrane to remove any debris and apply Weathered Membrane Cleaner. Apply Splicing Cement to the open or lifted seam area and re-adhere the overlapping membrane.

- E. **All adhesive seams** must be overlaid with 6" wide Pressure-Sensitive Cured Cover Strip or 9" wide Pressure-Sensitive Uncured Elastoform Flashing and Lap Sealant must be applied to all edges.
- F. **Taped seams** need not be overlaid unless a deficiency has been reported.

For seam deficiencies, overlay the seam with 6" wide Pressure-Sensitive Cured Cover Strip or 9" wide Pressure-Sensitive Uncured Elastoform Flashing and apply Lap Sealant to all edges.

- G. **For taped seams T-Joints**, overlay with 12" x 12" T-Joint Overlayment and apply Lap Sealant to all edges.

### 3.02 MEMBRANE CLEANING AND PRIMING

**Prior to completing any repairs**, the existing membrane surface must be cleaned and primed as follows:

- A. Remove heavy deposits of dirt, leaves, pine needles, and other debris using a broom or air blower. Any rocks, branches, or other large foreign objects should also be removed.
- B. Scrub the membrane with a scrub brush using warm water and a low sudsing soap such as *Spic And Span*, *Tide*, or *Lestoil* (approximately 1/4 to 1/2 cup of cleaner to one gallon of water). Refer to Part II, Paragraph 2.03, for recommended cleaners.

**Note:** An electric driven scrubber with a bristle type brush approximately 3/4" to 1-1/2" in length is recommended.

- C. Rinse with clean water and allow to dry.
- D. To prepare the membrane surface for splicing, clean the area with Weathered Membrane Cleaner and allow to dry.
- E. Prior to the application of Pressure-Sensitive Cured Cover Strips or SecurTAPE, the surface of **aged** EPDM membrane must be primed with Splicing Cement applied at 1/2 the normal coverage rate.
- F. For membrane seam repairs refer to Paragraph 3.01, General. All other repairs shall be completed as outlined below.

### 3.03 GRAVEL STOPS

- A. Replace loose fasteners with ring shank nails.
- B. Clean and prime the membrane as outlined in Paragraph 3.02, Membrane Cleaning and Priming.
- C. Overlay with 12" wide Pressure-Sensitive Cured Cover Strip and apply Lap Sealant to all edges.

### 3.04 DRAINS AND SCUPPERS

- A. Identify areas of wet insulation; remove and replace with new insulation.
- B. Install a new section of EPDM membrane that extends 3' on all sides of the roof drain and complete the membrane splice using 6" wide SecurTAPE.

**Note:** Clean and prime the membrane splice area as outlined in Paragraph 3.02, Membrane Cleaning and Priming. The surface of **aged** EPDM membrane must be primed with Splicing Cement applied at 1/2 the normal coverage rate and the underside of the **new** EPDM membrane shall be primed with HP-250 Primer.

### 3.05 SCOURED BALLAST

- A. Add new stone ballast in bare areas to achieve full coverage.
- B. Acceptable ballast shall conform to ANSI/SPRI RP-4 size #4 (nominal 1-1/2" stone) or #2 (nominal 2-1/2" stone).
- C. Apply stone ballast at a rate of 13 to 15 pounds per square foot.

### 3.06 DELAMINATED MEMBRANE – WET INSULATION

- A. Cut and remove membrane and wet insulation at area to be repaired. Install compatible insulation of equal thickness and secure with fasteners or adhesive.
- B. A new section of EPDM membrane shall be cut so it extends a minimum of 6" past the repair area for proper membrane splicing.
- C. Adhere the new EPDM membrane with Bonding Adhesive and complete the membrane splice using 6" wide SecurTAPE and Lap Sealant.

**Note:** Clean and prime the membrane splice area as outlined in Paragraph 3.02, Membrane Cleaning and Priming. The surface of **aged** EPDM membrane must be primed with Splicing Cement applied at 1/2 the normal coverage rate and the underside of the **new** EPDM membrane shall be primed with HP-250 Primer.

### 3.07 DELAMINATED MEMBRANE – NO WET INSULATION

#### A. Large Areas

- 1. Adhere 6" wide RUSS (Reinforced Universal Securement Strip) to the membrane and fasten with Sure-Seal Seam Fastening Plates and Fasteners spaced 12" on center.
- 2. Overlay the RUSS with 12" wide Pressure-Sensitive Cured Cover Strip and apply Lap Sealant to all edges.

**Note:** Clean and prime the membrane as outlined in Paragraph 3.02, Membrane Cleaning and Priming. The surface of **aged** EPDM membrane must be primed with Splicing Cement applied at 1/2 the normal coverage rate and the underside of the **new** EPDM membrane shall be primed with HP-250 Primer.

#### B. Small Scattered Areas

- 1. Fasten directly through the membrane using Sure-Seal Seam Fastening Plates and Fasteners spaced 12" on center.
- 2. Overlay fasteners with 6" wide Pressure-Sensitive Cured Cover Strip and apply Lap Sealant to all edges.

**Note:** Clean and prime the membrane as outlined in Paragraph 3.02, Membrane Cleaning and Priming.

### 3.08 PRE-MOLDED PIPE FLASHING

Use the appropriate restoration method below depending on field conditions:

- A. Replace Lap Sealant at the top of the Pre-Molded Pipe Seal.
- B. Apply Lap Sealant around the flange of the Pre-Molded Pipe Seal.
- C. Overlay the bottom flange of the Pre-Molded Pipe Seal with 6" wide Pressure-Sensitive Cured Cover Strip.
- D. Cut the EPDM membrane around the flange of the Pre-Molded Pipe Seal and remove the pipe flashing; replace with new membrane and new pipe flashing.

**Note:** Clean and prime the membrane splice area as outlined in Paragraph 3.02, Membrane Cleaning and Priming.

### **3.09 FIELD FABRICATED PIPE FLASHING**

Overlay the existing pipe flashing with new flashing or remove the existing flashing and replace.

### **3.10 X-Tenda Coat Coating Application**

- A. For a 10-year warranty extension, the Carlisle X-Tenda Coat Coating is required for the following projects:
1. Adhered projects incorporating 60-mil non-reinforced Sure-White (white-on-black) or 45-mil reinforced Sure-Seal (black) EPDM membrane.
  2. Mechanically Fastened projects incorporating 45-mil reinforced Sure-Seal (black) EPDM membrane.
- B. Apply X-Tenda Coat Coating to achieve a 20-mil Dry Film Thickness:
1. Base Coat – 22-mil (minimum wet film thickness)
  2. Finish Coat – 18-mil (minimum wet film thickness)
- C. Refer the Carlisle’s X-Tenda Coat Coating specification for applicable installation procedures.

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Spic And Span is a Registered Trademark of The Spic And Span Company, a division of Prestige Brands, Inc.

Tide is a Registered Trademark of Proctor & Gamble

Formula 409 and Lestoil are Registered Trademarks of The Clorox Company

Quik Stik and Valve Action are Registered Trademarks of LA-CO Industries, Inc.

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