

# RPI RE-FLEX COATING SPECIFICATIONS



## RPI RE-FLEX COATING EPDM ROOF SPECIFICATION

10/17/2011

This document contains complete specifications for the application of a warrantable RPI Re-Flex Coating System over existing EPDM membrane installations. Contact RPI Technical Dept. with questions concerning details or applications not covered in this document.



Roofing Products International Re-Flex Coating

# **PART 1 - GENERAL**

## **1.01 RELATED SECTIONS/DOCUMENTS**

Detail drawings, site-specific drawings and general provisions of the contract, including General, Supplementary and Special Conditions found in Division 7 Specification Sections, apply to the work addressed in this section.

## **1.02 SYSTEM DESCRIPTION**

The extent of the RPI RE-FLEX Coating System work defined by provisions of this section, include roofing, flashings, and required reinforcement of joints, seams, and seam intersections, and all RE-FLEX Coating accessories related to the system installation. Specific areas to be re-roofed shall be indicated on submitted drawings. Contact RPI Technical Dept. for any questions concerning the appropriateness of the RE-FLEX Coating System for any given EPDM, Metal, Smooth Surface Asphalt, and Modified Bitumen roof.

## **1.03 SUBMITTALS**

Submit Technical Data Sheets and product samples for RPI Re-Flex products, system installation instructions, and details for flashings, tie-ins, as required for system application.

## **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Provide primary products, including RPI RE-FLEX Elastomeric Roofing Coating, Re-Flex Flashing Cement, Re-Flex Coating Primer, and Re-Flex Flashing Fabric, etc., by a single manufacturer, Roofing Products International. Provide secondary products only as approved by Roofing Products International, (RPI) for use in the specified Re-Flex Coating System.
- B. Installer Qualifications: A contractor or Installer shall perform all work addressed in this section, and shall be a current RPI Registered Applicator, registered by RPI for installation of the warranted RPI Re-Flex Coating System.
- C. Installer Authorization: The Installer shall provide, upon request, a current Registered Applicator document from Roofing Products International certifying the contractor is approved for installation of the RPI Re-Flex Coating System.

## **1.05 REGULATORY REQUIREMENTS**

- A. FM Listing: Roofing Products International Re-Flex Coating System and component materials have been evaluated by Factory Mutual System for flame-spread and are listed in "Factory Mutual Approval Guide" for Class I construction over existing metal roofing (flame spread must be in accordance with ASTM #E-108). Provide roof covering materials bearing FM approval marking on package or container, which indicates that material has been subjected to FM's examination, test procedures, follow-up services, and approval.
- B. UL Listing: Roofing Products International Re-Flex Coating System and component materials have been evaluated by Underwriters Laboratories for flame-spread, and are listed in "Underwriters Laboratory Roofing Materials and Systems Directory" for Class A construction over existing metal or other non-combustible roofing (unlimited slope). Provide roof-covering materials bearing UL approval marking on container, which indicates that material, has been subjected to UL's examination and test procedures.

## **1.06 INSURANCE CERTIFICATES**

Contractor/installer must have current certificate of insurance covering all required work and extended coverage for roofing associated work.

## **1.07 PRE-INSTALLATION MEETING**

Prior to scheduled commencement of roofing installation and associated work conduct meeting at the project site with Installer, Owner or Building Owner representative or other persons involved with the application and performance of the installation. The installer shall maintain records of the discussions including logistics of staging the project, onsite storage and access to material and other worksite considerations. The purpose of the meeting is to review methods and procedures related to roofing work, including but not necessarily limited to the following:

- A. Inspect areas outlined in the proposed contract and discuss preparatory work to be performed including flashings, penetrations, and conditions of the substrate including areas of decking requiring replacement.
- B. Discuss installation of Re-Flex Coating System Specifications and any conditions which may require special consideration, (staging of equipment, materials, and access to power supply).
- C. Review construction schedule related to roofing work, accessibility to work site and facilities.
- D. Review and finalize construction schedule related to roofing work, and verify availability of materials, Installer's personnel, equipment, and facilities needed to consistently make progress and avoid delays.
- E. Review required inspection(s), testing, certifications, and material usage accounting procedures.
- F. Review current weather conditions which may affect installation and system performance and procedures for coping with unfavorable conditions, including the possibility of temporary roofing work.

## 1.08 DELIVERY, STORAGE AND PROTECTION

Store Re-Flex Coating products in a manner that shall ensure there is no possibility of damage or contamination. Store in a dry well ventilated area between 50°F and 80°F until product is ready to be applied. Do not allow product to freeze. Do not stack material pallets more than two high. Do not subject existing roof to unnecessary loading of stockpiled materials.

## 1.09 ENVIRONMENTAL CONDITIONS

Proceed with roofing work only when existing and forecasted weather conditions will permit work to be performed in accordance with Re-Flex Coating recommendations and warranty requirements, as follows:

- A. Do not begin work if rain is expected within 24 hours of application or if temperatures are expected to fall below 40°F for the duration of the installation. Do not apply Re-Flex products if freezing temperatures or frost is forecast, or may occur before the product has completely cured.
- B. Upper temperature restriction (both air and substrate):  
Do not apply Re-Flex Coating products if air or deck temperatures exceed 120°F.  
Lower temperature restriction:  
Do not apply Re-Flex Coating products if freezing temperatures are expected or forecast before the product has completely cured.
- C. Allow for sufficient daylight hours deemed necessary for the complete curing of materials.
- D. IMPORTANT: Other weather and environmental conditions to consider are mist, dew, condensation and relative humidity. These factors can lengthen drying times. Re-Flex Coating products and system performance will be compromised if exposed to rain before the products are completely dry.

## 1.10 SUBSTRATE CONDITIONS

Contact RPI Technical Services with any questions regarding the compatibility of Re-Flex Coating products with the existing substrate.

## 1.11 WARRANTY

Provide the RPI Re-Flex Coating System Warranty required by the Building Owner and/or Project Architect. The following requirements must be met prior to the issuance of the RPI Re-Flex System Warranty:

- A. The installer must submit a Job Start Notification for the project to RPI. RPI will determine the appropriateness of the Re-Flex Coating System based upon information supplied by the installer.
- B. The installer must be a member of the RPI Registered Contractor Program.
- C. RPI Technical Services must be notified of any areas, or sections of adjacent structures which tie-in to the warranted sections.
- D. RPI Re-Flex Coatings should be applied with specified rollers or an approved airless sprayer. Other methods of application must be pre-approved by RPI Technical Services.

- E. All roof areas including valleys, gutter, and slope changes which pond water for more than 48 hours after precipitation ceases are excluded from coverage under the RPI Re-Flex Coating System Warranty.

Refer to Re-Flex System Warranty for complete coverage and restrictions.

## **PART 2 – PRODUCTS**

### **2.01 ACCEPTABLE MANUFACTURERS**

Roofing Products International

### **2.02 MATERIALS GENERAL**

**IMPORTANT:** RPI Re-Flex Products that require drying or cure-times are affected by ambient weather conditions. High humidity and cool temperatures may prolong the normal expected cure time. Excessive moisture or rain may adversely affect the product and compromise system performance.

#### **A. RE-FLEX COATING**

RPI Re-Flex Coating is a high solids, elastomeric coating that cures to provide a seamless, durable, highly reflective and moisture resistant barrier that will help reduce building cooling costs by maintaining a lower roof deck temperature. A water-based low VOC material that will not crack, check, or lose its ability to remain flexible in subzero temperatures, Re-Flex Coating is Energy Star rated and meets solar reflectance and thermal emittance standards set by Cool Roof Rating Council. Do not apply at temperatures below 40°F. Substrate temperatures must be below 120°F when applying product. Drying time to touch is 1-2 hours. Drying time to recoat is approx. 2-4 hours.

Application Rate:	1 gallon per 100 sq. ft.
Application Method:	3/8" nap roller or airless sprayer
Application Temp (air, surface):	40° - 120°F
Dry Time (70°F touch, 50%RH):	Approx. 1-2 hours
Time Between Coats:	8-12 hours
Wet Film Thickness:	(1 gl /100 sq. ft.) 15-17 mils
Dry Film Thickness:	(1 gl /100 sq. ft.) 8-10 mils
Total Solids: % by weight:	60-62
% by volume:	51-52
Specific Gravity:	0.86 ± 0.1
pH:	8 -10
Weight per Gallon:	10-10.9 lbs/gal
Viscosity:	12,000 – 15,000 cps
Elongation:	350 % min.
Tensile Strength:	@ 73° F – 225psi
Weatherability:	No cracking, checking, loss of flexibility or discoloration
6000 hrs Xenon Arc	

#### **B. RE-FLEX FLASHING CEMENT**

RPI Re-Flex Flashing Cement is a trowel grade, Low VOC, water-based, Acrylic mastic material used as a base and cover cement for Re-Flex Flashing Fabric on EPDM, metal, smooth surface bur, and modified bitumen roofs. Re-Flex Flashing Cement is also used to encapsulate metal deck fastener heads prior to applying Re-Flex Coating. It is applied with a brush, hand trowel, or by hand (neoprene gloves should be worn), and is easily cleaned up (when wet) with soap and water. When applying to EPDM membranes, the membrane surface should first be primed the Re-Flex Coating Primer. Do not apply when temperatures are 50° F and falling, or frost, rain, or other adverse weather conditions are forecast.

Fastener Head Application Method:	Trowel, Brush, Hand (gloved)
Application Rate:	Approximately 800 per/gal
Flashing Seam Application Method:	Trowel, Brush, Hand (gloved)
Application Rate (two layers):	Approx. 30 ft. per/gal
Application Temperature (air, surface):	40° -120°F
Drying Time (70°F, 50% RH):	Approximately 4-6 hours
Wet Mil Thickness:	100 wet mils
Dry Mil Thickness:	55-60 dry mils
Total Solids (by weight):	60%±3%
Total Solids (by volume):	50%± 3%

Weight per Gallon:	10.2 -10.6 lbs
Viscosity:	30,000-50,000 cps
Clean-up:	Water before curing
VOC EPA Method 24A:	20 gm/l max.
Flash Point:	None

### C. RE-FLEX FLASHING FABRIC

Re-Flex Flashing Fabric is a 100% warp knit polyester fabric used with Re-Flex Flashing Cement to create a watertight, puncture resistant flashing. Re-Flex Flashing Fabric will not rot, mold, or mildew while maintaining excellent elongation and dimensional stability. Re-Flex Flashing Fabric should be used as a reinforcement membrane with Re-Flex Flashing Cement at slope angle changes, penetrations, curbs, and other areas subject to stress and movement. Re-Flex Flashing Fabric may be used in lieu of RPI EPDM membranes on existing EPDM membrane roofs not requiring a RPI Labor and Material Warranty.

Weight:	2.7 oz / sq. yd.
Tensile Strength:	75 lb./in.
Tear Strength:	13.5 lb./in.
Elongation to Break:	42.9 %
Color:	White
Dimensions:	6 in. x 300 ft. roll

### D. RE-FLEX PRIMER

RPI Re-Flex Primer is an elastomeric, copolymer primer designed specifically to enhance the adhesion of RPI Re-Flex elastomeric coatings and flashing cements to EPDM and Hypalon roof membranes. Re-Flex Primer may be applied , using a brush, roller, or sprayer; to properly cleaned new or old EPDM or Hypalon membranes used as flashings or tie-in membranes to metal roofs. Do not use on asphalt or coal tar. May be used to enhance adhesion to metal.

Application Rate:	¼ to ½ gallon per 100 sq. ft.
Application Method:	brush, 3/8 inch roller, or airless sprayer
Application Temp (air, surface):	50°F and rising
Drying Time to touch (75°F, 50% RH):	2 hours
Total Solids (by weight):	35-40%
Total Solids (by volume):	33-38%
Weight per Gallon:	8.4-9.0 lbs.
Viscosity CPS:	1000-2500
pH:	7-9
Flash Point:	None
VOC EPA Method 24A:	< 50 gm/l max

### E. RE-FLEX STAINBLOCKER

RPI Re-Flex Stainblocker is a copolymer sealant formulated to prevent the staining, bleed-thru, discoloration, and degradation of Re-Flex Coating when applied over asphalt, coal tar, and modified bitumen surfaces. Re-Flex Stainblocker is also used as a rust preventative over metal roof panels and flashings after the surfaces have been thoroughly cleaned prior to applying Re-Flex Coating.

Color:	Translucent, off-white
Application Method:	Airless sprayer or roller
Application Temp (air, surface):	40°F and rising to 120°F
Drying Time Touch (75°F, 50% RH):	1-2 hours
Cured Mil Thickness @ 1 gal/100sq. ft.:	5-7 hours
Total Solids (by weight):	28-32
Total Solids (by volume):	25-28
Viscosity, cps:	3000-5000
pH:	8-10
VOC EPA Method 24A	30 gm/l max
Flash Point:	None

### F. RE-FLEX RUSTOP RUST INHIBITOR

Re-Flex Ruststop Rust Inhibitor is a co-polymer, water based, Low VOC product designed to block and inhibit rust while improving the adhesion of Re-Flex Coating Products to properly prepared metal surfaces. Re-Flex Ruststop must be applied to any rust areas before the application of Re-Flex Coating or Flashing Cement. All loose, flaking, or rust scale must be removed by power washing, wire brush, grinder, or bead/sand blasting. Re-Flex Ruststop may be applied with brush or roller (small or sporadic areas), or sprayed (large areas). Re-Flex Ruststop is non-flammable and, when wet, and cleans up with soap and water. Do not apply when ambient temperatures are 50°F and falling, within 8 hours of application. Do not apply to Kynar or flouropolymer based coated surfaces.

Application Rate:	¼ to ½ gallon per 100 sq. ft.
Application Method:	brush, 3/8 inch roller, or airless sprayer
Application Temp (air, surface):	50°F and rising
Drying Time to touch(75°F, 50% RH):	2 hours
Total Solids (by weight):	52-60%
Total Solids (by volume):	48-55%
Weight per Gallon:	10.6-12.0 lbs.
Viscosity Ku:	65-75
pH:	5.2-8.0
Flash Point:	None
VOC EPA Method 24A:	50 gm/l max

## G. ROYAL EDGE WATER CUT-OFF MASTIC

RPI Royal Edge Water Cut-Off Mastic is a weather resistant one part butyl caulk designed to be used as a compression gasket or temporary water stop. It is applied as a sealing mastic between surfaces that are mechanically attached such as Pipes and Pipe Boots, Single Ply Membranes and Drain Clamping Rings, between substrates and membranes where Termination Bars are installed, and between Metal Cricket flanges and metal panels and curbs. Water Cut-Off Mastic is not designed to be used as an exposed caulk.

Application Rate:	Approximately 10 ft. when applied in a 3/8 to ½ inch bead
Application Method:	caulking gun
Application Temp (air, surface):	32°F and rising
Base:	Butyl Rubber
Appearance:	Grey Viscous Paste
Weight per Tube:	10.5 oz. per tube
Viscosity:	1,600,000 ± 300,000 cps
Odor:	Aliphatic odor
Flash Point:	14 °F (-10°C)
Solvent:	Heptane

## H. FASTENERS

RPI approved fasteners

## I. AIRLESS SPRAYER

As recommended by RPI Technical Services for application of Re-Flex Coating products.

# PART 3 - EXECUTION

## 3.01 PREPARATION OF SUBSTRATE

- A. Examine and make any necessary structural and metal decking modifications. Repair or remove and replace any metal decking that is damaged or considered unsafe or irreparable. All structural metal decking replacement is the responsibility of the installer and building owner.
- B. Preparation of the substrate is the responsibility of the installer. The installer shall be responsible for the following:
  1. Investigate for damp or saturated insulation.
  2. Replacement of damp or saturated insulation.
  3. Removal of ponding water areas.
  4. Cleaning existing field membrane and flashing surfaces.
  5. Treatment of asphalt residue.
  6. Miscellaneous items.

Refer to System Warranty Applications section for requirements specific to each warrantable installation.

1. Investigate for damp or saturated insulation:  
Existing roof assemblies must be investigated for moisture using core cuts or thermal imaging. Core cuts must be taken

and documented at a rate of 1 per 2500 sq. ft.. The results of the core cuts must be submitted to RPI as a part of the project, "Job Start Notification Form", along with subsequent remedial action. RPI will not issue Re-Flex Coating Labor and Material Warranties for installations over wet or saturated insulation.

2. Replacement of damp or saturated insulation:

All damp or saturated insulation, barrier board, or other assemblies, must be replaced with the same type, insulation value, FM/UL ratings, and dimensions as the original. The replaced insulation/barrier board must be installed to meet current wind uplift requirements using RPI approved fasteners or adhesives. Existing EPDM field membranes or flashings that are damaged or not properly adhered must be replaced using the same gauge RPI Royal Edge EPDM and flashings secured as originally installed. The replaced membranes shall be flashed onto the original membranes according to RPI seaming and flashing Specifications. Refer to the RPI Specification Manual for details.

3. Treatment of Ponding Water Areas:

Identify and eliminate areas of ponding water by installing drains, tapered saddles, or crickets that will remove or divert the flow of water to scuppers or gutters. Ponding water will affect the performance of Re-Flex Coatings. Ponding water is defined as water that remains on the roof surface for more than 48 hours after the precipitation stops.

4. Cleaning of Existing Field Membranes, and Other Substrates:

Using push broom or leaf blower, remove all loose dirt, dust, and debris from roof surface. After all loose debris has been removed; begin cleaning the membrane and flashings using a power washer with a minimum working pressure of 3,000 psi. All surfaces to be coated must be thoroughly cleaned using a power washer. Begin power washing at the high end of the roof slope and continue to the bottom of the slope. Take care not to damage the membrane and other surfaces when power washing. Do not use a zero degree tip when cleaning the membrane. Do not force water into the roof system by power washing directly into seam edges, or into open flashings. Remove previous paints/coatings and thoroughly clean waste products such as solvents, grease, animal fats, and other petroleum based products using RPI Membrane Cleaner. Membrane, flashings, and other substrates that have algae, mold or fungus, must be treated with a bleach solution before power washing the substrates. All existing silicone-based sealants and residue must be completely removed from the substrate.

5. Treatment of Residual Asphalt:

The installer shall make every effort to remove asphalt roofing cements from any surface to receive coating, (metal, brick, etc.). Removal efforts must include use of methods such as pressure washing, scrapers, wire brushes, electrical drill wire-wheels, or other similar tools. Residual asphalt is asphalt material remaining on the substrate after all removal efforts. All residual asphalt areas must be primed with Re-Flex Stainblocker before applying Re-Flex Coating.

6. Miscellaneous Items:

a. Pipe Flashings:

- a.1. Pipes used as heat exhaust stacks for furnaces, boilers, water-heaters, and other heat sources should have the proper code approved metal flashing that is flashed to the roof deck. Existing heat exhaust stacks require a cured membrane target patch with one layer of Royal Edge Uncured Flashing with Tape extending 3" up the cone, and 3" onto the target patch.
- a.2. Pipes such as soil stacks flashed with neoprene pipe boots must be flashed with Re-Flex Flashing Fabric and Re-Flex Flashing Cement around the pipe, extending over the top of the pipe boot. A cured EPDM target patch must be installed over the base of the pipe boot.

b. Pitch Pans:

- b.1. Fill existing pitch pans with RPI Pitch Pan Sealer and allow the Sealer to cure. After the sealer has cured, apply Re-Flex Flashing Cement and Re-Flex Flashing Fabric over the Sealer, extending over and down the sides of the pitch pan. Contact RPI Technical Services for requirements or questions.

c. Condensate Drain Lines: RPI recommends installation of condensate drain lines from HVAC units to gutters as part of the overall roofing contract. Type of piping used for condensate lines may vary depending on local building codes. Lines must be securely fastened to panel ribs. Damage to the roof coating such as discoloration, peeling, mold or algae caused by improperly drained HVAC units will not be covered by the RPI Re-Flex Coating Warranty.

## 3.02 APPLICATION INFORMATION

### A. PRIMER APPLICATION

Re-Flex Primer shall be applied to all prepared EPDM and Hypalon membranes prior to applying Re-Flex Flashing Cement or Coating. The primer should be applied at a rate of 200 sq. ft. per gallon using a solvent based roller cover, or sprayed using an airless sprayer with a tip size of .017-.019. Proper dry-time should be observed before applying Re-Flex Flashing Cement. All surfaces must be completely clean and dry.



## B. SEAM AND FLASHING DETAILS

### 1. Seams and Flashing Details using Royal Edge EPDM Membranes, Tapes, and Primers.\*

a. Apply RPI Royal Edge Cover Tape to All Field Seams:

Using RPI Scrub Pads, apply RPI Seam Tape Primer to the existing field seams and install Royal Edge 5" Cover Tape over the seam. All sheet field seams, sheet end seams, and butted sheets previously cover taped must be stripped in with Royal Edge Cover Tape. Seams or flashings, (metal drip) that were originally flashed with 5" Cover Tape must be flashed with 6" Cover Tape. Refer to the RPI Specification Manual for specific installation details.

b. Apply RPI Uncured Flashing with Tape to all new and existing T-Joint s, outside/inside corners, seam angle changes, radical bend patches, and other uncured flashings.

Using RPI Scrub Pads, apply Royal Edge Seam Tape Primer to all existing uncured flashings and install one layer of Royal Edge Uncured Flashing with Tape, over existing uncured flashings. Existing flashings that have physical damage, or have failed due to excessive movement or stress must be flashed with two layers of Royal Edge Uncured Flashing with Tape. Refer to System Warranty Applications section for requirements specific to each warrantable installation.

\* Royal Edge EPDM Membrane Flashings are required for Re-Flex 10, or Re-Flex 15 year Labor and Material Warranties.

Re-Flex Labor and Material and Material Warranties do not cover Re-Flex products or workmanship for installations to gutters or scuppers that do not properly and completely drain. It is the building owner's responsibility to provide any maintenance required to keep the gutters and scuppers clean and free of debris.

### 2. Seams and Flashing Details using Re-Flex Flashing Fabric and Re-Flex Flashing Cement.\*\*

a. Seams: Apply Re-Flex Primer, at a rate of 200 sq. ft. per gallon to existing prepared field seams and flashings; extending the primer 4 inches beyond the seam edge on each side. After the Primer has dried, apply a .060 mil layer of Re-Flex Flashing Cement over the seam edge. Immediately embed Re-Flex Flashing Fabric into the Cement until the fabric is fully encapsulated into the cement. Feather the edges of the cement.

b. Gutter Straps: All gutter straps, including fastener heads that are fastened over existing membrane must be totally encapsulated with Re-Flex Flashing Cement and feathered to allow for proper flow of water.

c. Termination Bar and Fastener Heads: All Termination Bar and fasteners must be totally encapsulated in Re-Flex Flashing Cement. Brushing may be required to obtain the proper feathering around fasteners.

d. Parapet Wall Seam Flashing Details: All parapet wall details must be properly secured and sealed with a 6" minimum width of Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement.

e. Curb Flashings: All horizontal and vertical curb flashings, including cricket details, must be flashed with a 6" width Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement.

f. Penetrations: Apply Re-Flex Flashing Cement around the base of the curb/penetration, extending a minimum of 4" onto the deck, extending a minimum of 4" up the vertical surface. Cut or fold a 6" width Re-Flex Flashing Fabric to match the curb/penetration shape. Apply Re-Flex Flashing Cement as needed over the embedded Flashing Fabric.

g. Pipe Boots: Apply Re-Flex Flashing Cement to the top 3 inches of the pipe boot (over the clamping ring) extending a minimum 3 inches onto the pipe. Embed Re-Flex Flashing Fabric into the cement.

Apply Re-Flex Flashing Cement over the base of the pipe boot, extending onto the field membrane a minimum of 4 inches. Embed Re-Flex Flashing Fabric into the cement around the pipe boot. The Flashing Fabric may be applied in multiple pieces with a minimum overlap of 3 inches; or applied in one continuous piece with folds (when folding a continuous piece, the folds must be flat with an additional layer of Re-Flex Flashing Cement over the embedded fabric.

h. Skylights: Skylight curbs shall be flashed in the same fashion as curb flashings. Flush-mounted skylight perimeters must be flashed with a minimum 6" width Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement. All exposed skylight fastener heads shall be encapsulated with Re-Flex Flashing Cement. Re-Flex Flashing Fabric must be cut around all fasteners to eliminate voids and allow Fabric to lie flat without voids or open areas. Do not allow Re-Flex Flashing Fabric to bridge fastener heads.

i. Gutters: Gutters must be completely clean and dry before applying Re-Flex products. Apply Re-Flex Flashing Cement over each gutter seam extending 4" on each side of the seam edge. Embed Re-Flex Flashing Fabric into Re-Flex Flashing Cement. Allow application to cure 24 hours. Apply second coat of Re-Flex Flashing Cement. Feather edges to allow for proper flow to downspout.

**IMPORTANT:** Check gutter for proper slope and drainage. Adjust for proper drainage before flashing application.\*\*

j. Inform Project Architect and RPI Warranty Services Department when all preliminary work and flashing details are complete and the Installer is ready to proceed with application Re-Flex Coating. Allow a minimum of two weeks for the interim inspection to be made by RPI's Technical Services Department. Any final roofing installation prior to this interim inspection is subject to rejection by the Project Architect and or RPI's Contractor Services Department.

\*\* Acceptable for Re-Flex 5 Labor and Material Warranty. Not Acceptable for Re-Flex 10, or 15 year Labor and Material Warranties.

Re-Flex Labor and Material and Material Warranties do not cover Re-Flex products or workmanship for installations to gutters or scuppers that do not properly and completely drain. It is the building owner's responsibility to provide any maintenance required to keep the gutters and scuppers clean and free of debris.



3. **Preliminary Work Flashing Details:** Preliminary work consists of the cleaning and preparation of the substrate and all flashing details. After completion of substrate preparation, all flashing details, seams, penetrations and curbs must be flashed in accordance with RPI Royal Edge EPDM detail drawings. Additional flashing requirements when using Re-Flex Flashing Cement are as follows:
1. **Termination Bar and Fastener Heads:** All Termination Bar and fasteners must be totally encapsulated in Re-Flex Flashing Cement. Brushing may be required to obtain the proper feathering around fasteners.
  2. **Gutter Straps:** All gutter straps, including fastener heads, that are fastened over existing membrane must be totally encapsulated with Re-Flex Flashing Cement and feathered to allow for proper flow of water.
  3. **Horizontal Seams:** All horizontal seams must be reinforced with a 6" wide layer of Re-Flex Flashing Fabric Flashing embedded into, and covered with Re-Flex Flashing Cement. The first layer of Flashing Cement must extend past the seam edge a minimum of 3 inches above and below the seam edge. Immediately apply the Flashing Fabric over the Flashing Cement. The Flashing Fabric is must be fully embedded into the Flashing Cement and allowed to set up. Cut the Flashing Fabric to lay flat around any fasteners in the flashing area. After the Cement and Fabric have dried, apply the cover coat of Re-Flex Flashing Cement over the embedded Flashing Fabric, extending approximately 1 inch past the fabric onto the metal panel. NOTE: All Flashing Cement must be feathered to allow water to flow over the seam flashing. Allow a minimum 2 inches for splice overlaps of Flashing Fabric. Apply Flashing Fabric without bridging or voids over ribbed roof panels and flashing angle changes.
  4. **Ridge Caps:** Except as noted, all ridge cap seams must be flashed with a 6" width of Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement. All voids and open areas in ridge cap must be filled with polyurethane foam prior to application of the base coat of Re-Flex Flashing Cement. (NOTE: Z closures which are located within 2" of the ridge cap edge must be clean of all existing sealant. Apply Re-Flex Flashing Cement to all sides of the Z closures where they intersect with both the roof panel and ridge cap.)
  5. **Rakes:** All fixed rake details for the roof must be secured and flashed with Re-Flex Flashing Cement and a minimum 6" inch wide Re-Flex Flashing Fabric. If fixed rake metal is fastened to top of roof panel rib and extends back onto roof, trim off excess metal and follow horizontal seam flashing procedures. All voids and open areas must be filled with polyurethane foam and shaped to provide proper slope before the application of Re-Flex Flashing Cement and Re-Flex Flashing Fabric.
  6. **Parapet Wall Seam Flashing Details:** All parapet wall details must be properly secured and sealed with a 6" minimum width of Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement. Trim off excess metal and follow horizontal seam flashing procedures.
  7. **Curb Flashings:** All horizontal and vertical curb flashings, including cricket details, must be flashed with a 6" width Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement. Encapsulate all fastener heads using Re-Flex Flashing Cement.
  8. **Penetrations:** Apply Re-Flex Flashing Cement around the base of the curb/penetration, extending a minimum of 4" onto the deck, extending a minimum of 4" up the vertical surface. Cut or fold a 6" width Re-Flex Flashing Fabric to match the curb/penetration shape. Apply Re-Flex Flashing Cement as needed over the embedded Flashing Fabric.
  9. **Pipe Boots:** Flash pipe boots from the boot onto the pipe, and the boot onto the metal deck using the same application method for penetrations. Apply Re-Flex Flashing Cement as needed over the embedded Flashing Fabric.
  10. **Skylights:** Skylight curbs shall be flashed in the same fashion as curb flashings. Flush-mounted skylight perimeters must be flashed with a minimum 6" width Re-Flex Flashing Fabric embedded in Re-Flex Flashing Cement. All exposed skylight fastener heads shall be encapsulated with Re-Flex Flashing Cement. Do not allow Re-Flex Flashing Fabric to bridge fastener heads. Re-Flex Flashing Fabric must be cut around all fasteners to eliminate voids and allow Fabric to lie flat.
  11. **Gutters:** Gutter must be completely clean and dry before applying Re-Flex products. Apply Re-Flex Flashing Cement over each gutter seam extending 4" beyond seam edge. Embed Re-Flex Flashing Fabric into Re-Flex Flashing Cement. Allow application to cure 24 hours. Apply second coat of Re-Flex Flashing Cement. Feather edges to allow proper flow to downspout. **IMPORTANT:** Check gutter for proper slope and drainage. Adjust for proper drainage before flashing application.
  12. **Inspect Flashing Details:** Inspect all flashing details for gaps, voids, bridging, cracks, and proper coverage of flashing applications to ensure that all flashing work is complete and satisfactory.
  13. **Ponding Water Areas:** Contact RPI Technical Department.

14. Inform Project Architect and RPI Warranty Services Department when all preliminary work and flashing details are complete and the Installer is ready to proceed with application Re-Flex Coating. Allow a minimum of two weeks for the interim inspection to be made by RPI's Technical Services Department. Any final roofing installation prior to this interim inspection is subject to rejection by the Project Architect and or RPI's Contractor Services Department.

## **B. System Warranty Application Requirements:**

### **1. Re-Flex 5 EPDM Warranty:**

5-Year Labor and 10-Year Material NDL Warranty

- a. All cuts, punctures, or tears in existing cured membrane must be repaired using RPI Royal Edge EPDM Cover Tape. Cuts, tears, or punctures in uncured flashing details must be repaired with RPI Royal Edge Uncured Flashing with Tape. Existing field seams and flashing details, must be flashed with 1 layer of Re-Flex Fabric embedded in Re-Flex Flashing Cement.
- b. Apply Re-Flex Primer to the prepared field membrane and flashings at a rate of ½ gallon per 100 sq. ft. using 3/8" nap solvent resistant roller or airless sprayer.
- c. Spray-apply grey base coat of Re-Flex Elastomeric Coating over substrate and properly prepared flashings at a rate of 1 gallon per 100 square feet. Allow at least 24 hours drying time; and inspect the base coat for inadequate coverage or defects. Make necessary modifications.
- d. Spray-apply the finish coat (white) of Re-Flex Elastomeric Coating Membrane at the rate of 1 gallon per 100 square feet. It should not be applied unless the base coat is clean, dry, and properly cured. Allow a minimum of 24 hours drying time prior to allowing foot traffic or inspection of the coated surface.
- e. Allow at least 24 hours cure time; then inspect the roof surface for complete and uniform membrane coverage, thickness or defects. The specified Re-Flex Coating 5 System dry membrane thicknesses are 17 mils field and 80 mils on seams and flashing details. Upon completion of work, membrane seam edges should not be visible on the roof. All unsatisfactory areas must be repaired.

Note: RPI Re-Flex Labor and Material Warranties are available only thru RPI Registered Contractors.

### **2. Re-Flex 10 Warranty:**

10 Year Labor and 10 Year Material NDL Warranty

- a. All cuts, punctures, or tears in existing cured membrane must be repaired using RPI Royal Edge EPDM Cover Tape. Cuts, tears, or punctures in uncured flashing details must be repaired with RPI Royal Edge Uncured Flashing with Tape.
- b. Apply RPI Royal Edge Seam Tape Primer to all existing membrane field seams, metal edge details and install Royal Edge Cured Cover Tape. Apply Royal Edge Seam Tape Primer to all uncured flashing details and install Royal Edge Uncured Flashing with Tape.
- c. Apply Re-Flex Primer to the prepared field membrane and flashings at a rate of ½ gallon per 100 sq. ft. using 3/8" nap solvent resistant roller or airless sprayer.
- d. Spray-apply grey base coat of Re-Flex Elastomeric Coating at a rate of 1 gallon per 100 square feet. Allow at least 24 hours drying time; and inspect the base coat for inadequate coverage or defects. Make necessary modifications.
- e. Spray-apply finish coat (white) of Re-Flex Elastomeric Roofing Membrane at a rate of 1.5 gallons per 100 square feet. It should not be applied unless the base coat is clean, dry, and properly cured. Allow a minimum of 24 hours drying time prior to allowing foot traffic or inspection of the coated surface.
- f. Allow at least 24 hours cure time; then inspect the roof surface for complete and uniform membrane coverage, thickness or defects. Specified Re-Flex 10 System dry membrane thicknesses are 23 mils field and 83 mils on seams and flashing details. Upon completion of work, membrane seam edges should not be visible on the roof. All unsatisfactory areas must be repaired.

Note: RPI Re-Flex Labor and Material Warranties are available only thru RPI Registered Contractors.

### 3. **Re-Flex 15 Warranty:**

#### 15 Year Labor and 15 Year Material NDL Warranty

- a. All cuts, punctures, or tears in existing cured membrane must be repaired using RPI Royal Edge EPDM Cover Tape. Cuts, tears, or punctures in uncured flashing details must be repaired with RPI Royal Edge Uncured Flashing with Tape.
- b. Apply RPI Royal Edge Seam Tape Primer to all existing membrane field seams, metal edge details and install Royal Edge Cured Cover Tape. Apply Royal Edge Seam Tape Primer to all uncured flashing details and install Royal Edge Uncured Flashing with Tape.
- c. Apply Re-Flex Primer to the prepared field membrane and flashings at a rate of ½ gallon per 100 sq. ft. using 3/8" nap solvent resistant roller or airless sprayer.
- d. Spray-apply base coat (grey) of Re-Flex Elastomeric Roofing Membrane at a rate of 1.5 gallon per 100 square feet. Base coat shall be applied in a parallel manner to the ribs of roof panels. Allow at least 24 hours drying time then inspect the base coat for inadequate coverage and defects. Make necessary modifications.
- e. Apply RPI Royal Edge Seam Tape Primer to all existing membrane field seams, metal edge details and install Royal Edge Cured Cover Tape. Apply Royal Edge Seam Tape Primer to all uncured flashing details and install Royal Edge Uncured Flashing with Tape.
- f. Apply Re-Flex Primer to the prepared field membrane and flashings at a rate of ½ gallon per 100 sq. ft. using 3/8" nap solvent resistant roller or airless sprayer.
- g. Spray-apply finish coat (white) of Re-Flex Elastomeric Roofing Membrane at a rate of 1.75 gallon per 100 square feet. It should not be applied until the base coat is clean, dry, and properly cured. Allow a minimum of 24 hours drying time prior to allowing foot traffic or inspection of roof surface.
- h. Allow at least 24 hours cure time; then inspect the roof surface for complete and uniform membrane coverage, thickness, or defects. Specified Re-Flex 15 System dry membrane thicknesses are 30 mils field and 90 mils on seams and flashing details. Upon completion of work, membrane seam edges should not be visible on the roof. All unsatisfactory areas must be repaired.

Note: RPI Re-Flex Labor and Material Warranties are available only thru RPI Registered Contractors.