RPI RE-FLEX COATING SPECIFICATIONS



RPI RE-FLEX COATING METAL ROOF SPECIFICATION

10/17/2011

This document contains complete specifications for the application of a warrantable RPI Re-Flex Coating System over, ribbed, standing seam and other low slope metal roofs. Contact RPI Technical Dept. with questions concerning details or applications not covered in this document.



Metal Roof Specification 1 of 10

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 metal 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. <u>Manufacturer Qualifications:</u> Provide primary products, including RPI RE-FLEX Elastomeric Roofing Coating, RE-FLEX FLASHING CEMENT, RE-FLEX COATING PRIMER, and RE-FLEX 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. <u>Installer Qualifications:</u> 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. <u>Installer Authorization</u>: 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. <u>FM Listing:</u> 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. <u>UL Listing:</u> 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 be 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 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:

Application Method:

Application Temp (air, surface):

Application Temp (air, surface):

Approx 1.2 hours

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 6000 hrs Xenon Arc

Rocacking, checking, loss of flexibility or discoloration

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 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

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:

Dry Mil Thickness:

Total Solids (by weight):

Total Solids (by volume):

Weight per Gallon:

Viscosity:

100 wet mils

55-60 dry mils

60%±3%

50%± 3%

10.2 -10.6 lbs

Viscosity:

30,000-50,000 cps

Clean-up: Water 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.

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 a 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, coal tar, or metal.

Application Rate: $\frac{1}{4}$ to $\frac{1}{2}$ 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):

Total Solids (by weight):

Total Solids (by volume):

Weight per Gallon:

Viscosity CPS:

pH:

Flash Point:

2 hours

35-40%

34-90 lbs.

1000-2500

7-9

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 5-7 hours Cured Mil Thickness @ 1 gal/100sq. ft.: 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, 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: 1/4 to 1/2 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):

Weight per Gallon:

Viscosity Ku:

pH:

5.2-8.0

Flash Point:

VOC EPA Method 24A:

48-55%

10.6-12.0 lbs.

65-75

5.2-8.0

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. 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:

Application Temp (air, surface):

Base:

Appearance:

Weight per Tube:

Viscosity:

Caulking gun

32°F and rising

Butyl Rubber

Grey Viscous Paste

10.5 oz. per tube

1,600,000 ± 300,000 cps

Odor: Aliphatic odor Flash Point: 14 °F (-10°C) Solvent: Heptane

H. FASTENERS

self-drilling stitching screws; hex-head, zinc-coated.

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 and 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. Clean metal roof panels and flashings.
 - 2. Re-tighten or replace existing fasteners.
 - 3. Fabrication and installation of sheet metal crickets (if required).
 - 4. Flashing of voids and gaps at overlap seams between panels.
 - 5. Removal of ponding water areas.
 - 6. Repair of collapsed, dented, or damaged panels, and ribs.
 - 7. Cleaning or removal of existing mastics, paints and coatings.*
 - 8. Treatment of asphalt residue.
 - 9. Preparing and priming rust areas.
 - 10. Metal panels with finishes requiring primer.
 - 11. Miscellaneous items.

*If existing coatings or mastics cannot be completely removed from the metal deck or flashings, document the remaining residue or coating and contact RPI Technical.

1. Thorough Cleaning/Removal of Existing Paints and Coatings:

Metal substrate must be pressure washed with water. Use minimum working pressure of 3,000 psi to remove all dirt, dust, previous paints/coatings that are delaminating and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). All existing silicone-based sealants must be completely removed from roof substrate prior to the application of Re-Flex products. Metal roof panels and flashing substrates that have algae, mold or fungus, must be treated with a bleach solution before power washing the substrates.

2. Re-tightening and Replacement of Fasteners:

All fasteners must be must be checked and re-tightened, secured or replaced, as necessary. All stripped fasteners must be replaced with larger diameter fasteners, and the area re-secured by adding a new fastener next to the one that was stripped. All missing fasteners must be replaced.

3. Fabrication and Installation of Sheet Metal Crickets:

Sheet metal crickets must be installed on the high side of all curb units to remove any ponding water. Metal of a minimum 26 gauge or heavier is required or larger crickets. Vertical ribs shall be cut a minimum of 2" from the cricket to allow both the cricket flanges to mount flush to the metal panel and facilitate water drainage. Cut vertical ribs shall then be treated in the same fashion as an excessive gap. New crickets shall be "sealed" by placing a continuous bead of RPI Royal Edge Water Cut-Off Mastic under the flanges before they are attached to the curb and metal roof panel. The cricket flanges must then be secured to the curb and metal roof panel using fasteners. This procedure shall apply to installation of all new crickets and curbs.

4. Flashing voids and gaps at overlap seams between panels:

All panel overlap seams with voids, open gaps or loose overlaps existing between the roof panels must be closed or made flush with oversize self-drilling fasteners. Closed-celled foam backer bars or expanding polyurethane foam may be used to pre-fill voids larger than 1/4 inch before applying Re-Flex Flashing Cement and Re-Flex Fabric. After proper cure time, the expanding foam shall be shaped to create a 45° slope from the top seam edge to the bottom panel which facilitates proper drainage and a base for Re-flex Flashing Cement and Re-Flex Fabric.

5. Treatment of Ponding Water Areas:

Prior to power washing the metal panels and flashings, the installer shall make every effort to eliminate all areas of ponding water on the roof. Ponding water is defined as water which does not drain and remains for more than 48 hours after the precipitation stops.

6. Repair of Dented or Damaged Panels:

The installer shall repair dented and/or damaged metal roof panels. Dents shall be mechanically removed to the maximum extent possible. If ribs are broken, the installer shall cover the broken rib area with a sheet metal cap formed to the profile of the rib. Sheet metal ribs must be caulked with Water Cut-Off Mastic on the rib before the cap is installed over the rib. The cap should be attached with self tapping screws. Re-Flex Flashing Cement should be applied over the entire rib cap and fasteners, and allowed to cure before applying Re-Flex Coating. The installer shall remove and replace all roofing panels deemed irreparable prior to the application of RPI Re-Flex products.

7. Thorough Cleaning/Removal of Existing Paints and Coatings:

Metal substrate must be pressure washed with water. Use minimum working pressure of 3,000 psi to remove all dirt, dust, previous paints/coatings that are delaminating and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). All existing silicone-based sealants must be completely removed from roof substrate prior to the application of Re-Flex products. Metal roof panels and flashing substrates that have algae, mold or fungus, must be treated with a bleach solution before power washing the substrates.

8. Treatment of Residual Asphalt:

The installer shall make every effort to remove asphalt roofing cements and flashings. Removal efforts must include use of methods such as pressure washing, scrappers, 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.

9. Treatment of Rust Areas:

All rust areas must be treated with Re-Flex Rustop to prevent further deterioration of the metal roof panels. Roof panels that have corroded completely thru the panel must be replaced. All loose scale, or flaking rust not remove by power washing, must be removed with wire brush. All cleaned, rusted areas shall then be coated with Re-Flex Rustop Rust Inhibitor. Heavily rusted areas may require two coats of Re-Flex Rustop Rust Inhibitor to completely encapsulate, seal the rust, and prevent stain migration thru the Re-Flex Coating.

10. Metal Panels with finishes that require Test patches or Priming:

Roof panels with finishes known or suspected to contain fluoropolymers, or have existing coatings which may contain silicone, require test patches to determine the adhesion of Re-Flex products. The installer shall install each test patch as follows:

- a. Clean 4 (four)-12 inch by 12 inch (1 sq. ft.) test patch areas to remove any dust, dirt, or loose material.
- b. Apply Re-Flex Coating Primer to two test patch areas and allow product to dry.
- c. Apply Re-Flex Coating to all (four) test patch areas and allow coating to dry.
- d. After first coat of product has dried, apply second coat of Re-Flex Coating.
- e. Allow test patches to cure for 7 to 10 days.
- f. Using a knife, make a cross shaped cut thru each patch. Using a trowel, beginning at the center of the cut, attempt to remove the Re-Flex Coating. Photograph and document the adhesion of the Re-Flex Coating to the substrate and provide the results to RPI Technical Services for evaluation.

11. 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 with Re-Flex Flashing Cement and Re-Flex Flashing Fabric.
 - a.2. Pipes not used as heat exhaust stacks, such as soil stacks may be flashed in with neoprene pipe boots with flexible metal bans secured with self-tapping fasteners, or with Re-Flex Flashing Cement and Re-Flex Flashing Fabric. Water Cut-Off Mastic must be applied directly under the pipe boot metal band clamp prior fastening the boot to the metal deck.

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 with installation questions or requirements.
- c. <u>Condensate Drain Lines</u>: 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 AND INSPECTION INFORMATION

- A. <u>Preliminary Work Flashing Details</u>: Preliminary work consists of the preparation of the substrate and all flashing details. After completion of substrate preparation, all flashing details, horizontal seams, penetrations and curbs must be flashed with 6" Re-Flex Flashing Fabric and Re-Flex Flashing Cement in accordance with RPI Re-Flex Coating detail drawings. Additional flashing requirements are as follows (see RPI Re-Flex Coating Detail Drawings):
 - 1. <u>Fasteners:</u> All fasteners must be totally encapsulated in Re-Flex Flashing Cement. Brushing may be required to obtain the proper feathering around fasteners.
 - 2. <u>Gutter Straps:</u> All gutter straps, including fastener heads, that are fastened above roof panels must be totally encapsulated with Re-Flex Flashing Cement and feathered to allow for proper flow of water.

3. Vertical Seams:

- a. <u>Ribbed:</u> All ribbed panel vertical seams must be sealed with Re-Flex Flashing Cement. Feather the Flashing Cement until the seam edge is no longer visible while brushing in the direction parallel to the seam.
- b. <u>Standing Seam:</u> All standing vertical seams must be sealed with a Re-Flex Flashing Cement. Feather the Flashing Cement until the seam edge is no longer visible while brushing in the direction parallel to the seam. Contact RPI Technical Services for details on specific standing seam configurations..
- c. <u>Standing T Seam:</u> Both sides of vertical seams of the standing "T" must have Re-Flex Flashing Cement brushed into the seams.
- d. <u>Corrugated:</u> All corrugated panel vertical and horizontal seams must be sealed with Re-Flex Flashing Cement. Feather the Flashing Cement until the seam edge is no longer visible while brushing in the direction parallel to the seam. <u>NOTE:</u> Flashing Fabric is not required over horizontal corrugated metal seams when fasteners are installed a minimum of 6 inches on center of each seam.
- e. <u>Batten:</u> Both vertical seams of the batten must be flashed with a Re-Flex Flashing Cement until the seam edge is no longer visible while brushing in the direction parallel to the seam.

- 4. 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.
- 5. <u>Cinch Straps at Panel End Overlaps:</u> Re-tighten cinch straps, as necessary. Completely fill the cinch strap water channel and encapsulate the cinch straps and fastener heads with Re-Flex Flashing Cement. All voids in the water channel should be filled with Re-Flex Flashing Cement. <u>NOTE: All Flashing Cement must be feathered to allow water to flow over the seam flashing.</u> The application Re-Flex Flashing Fabric over the cinch straps is not required.
- 6. <u>Ridge Caps:</u> 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.)
- 7. 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.
- 8. <u>Parapet Wall Seam Flashing Details:</u> 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. 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.
- 9. <u>Curb Flashings:</u> 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. Do not allow Flashing Fabric to bridge fastener heads. Re-Flex Flashing Fabric must be cut around all fastener heads to eliminate voids or bridging, allowing the Fabric to lay flat.
- 10. <u>Penetrations:</u> 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.
- 11. <u>Pipe Boots</u>: 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.
- 12. <u>Skylights:</u> 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.
- 13. <u>Gutters:</u> 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.
- 14. <u>Inspect Flashing Details:</u> 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.
- 15. Ponding Water Areas: Contact RPI Technical Department.
- 16. 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.

6 "GnghYa 'K Uff Ubmi5 dd']WUnjcbg.

%" FY!: `YI ') 'K UffUblm

5-Year Labor and 10-Year Material NDL Warranty available thru RPI Registered Contractors.

- a. 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. Spray application of Re-Flex Coating shall be applied in a manner parallel to the roof panel ribs. Allow at least 24 hours drying time; and inspect the base coat for inadequate coverage or defects. Make necessary modifications.
- b. Spray-apply the finish coat (white) of Re-Flex Elastomeric Coating Membrane at the rate of 1 gallon per 100 square feet. The finish coat shall be applied in a manner parallel to the ribs of the roof panels. 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.
- c. 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, panel seams 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.

&" FY!: `YI '%\$'K UffUblm

10 Year Labor and 10 Year Material NDL Warranty available thru RPI Registered Applicators.

- a. Spray-apply grey base coat of Re-Flex Elastomeric Coating at a rate of 1 gallon per 100 square feet. Base coat shall be applied in a manner parallel to the ribs of roof panels. Allow at least 24 hours drying time; and inspect the base coat for inadequate coverage or defects. Make necessary modifications.
- b. Spray-apply finish coat (white) of Re-Flex Elastomeric Roofing Membrane at a rate of 1.5 gallons per 100 square feet. Finish coat shall be applied in a manner parallel to the ribs of the roof panels. 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.
- c. 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, panel seams should not be visible on the roof. All unsatisfactory areas must be repaired.

' "FY!: `YI '%) 'K UffUbhm

15 Year Labor and 15 Year Material NDL Warranty available thru RPI Registered Applicators.

- a. 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.
- b. Spray-apply finish coat (white) of Re-Flex Elastomeric Roofing Membrane at a rate of 1.75 gallon per 100 square feet. Finish coat shall be applied parallel to the ribs of the roof panels. 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.
- c. 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, panel seams should not be visible on the roof. All unsatisfactory areas must be repaired.