GenFlex™ EZ Fleece Backed TPO Roofing Systems

Application Guide

April 2026

NOTE: The contents of this guide are considered accurate at the time of posting. All information contained within should be validated for accuracy as it relates to specific project conditions or requirements. Specific codes, uplifts or other factors may result in changes to the information contained within this document. Validate all specific conditions with a GenFlex Regional Technical Coordinator prior to its use.

TABLE OF CONTENTS

GENERAL

This section of GenFlex's Technical Manual provides instructions for the installation of GenFlex EZ Fleece Backed TPO membrane using hot asphalt, GenFlex Quick Dual Adhesive, or GenFlex EZ TPO Quick Jet Adhesive. Reference to the Design Guide, Product Data Sheets and other sections of GenFlex's Technical Specifications is necessary to ensure that the finished roof system is installed in compliance with GenFlex requirements and therefore suitable to receive a Roofing System Limited Warranty.

> ! **NOTE:** If a proposed application falls outside this specification, contact a GenFlex Regional Technical Coordinator for additional information.

JOB SITE CONSIDERATIONS (CAUTION AND WARNINGS)

> ! It is the roofing contractor's responsibility to ensure that the substrate is acceptable for the GenFlex roof system.
>
> GenFlex does not approve of or recognize the results of destructive testing by others for the purposes of project close-out or to satisfy contract requirements. Any damage caused by such testing may prevent GenFlex from issuing a warranty. GenFlex is not responsible for costs associated with repairs or enhancements performed to the roof system as a result of testing.

Safety & Cautions

1. Keep all adhesives, sealants and cleaning materials away from all ignition sources (i.e., flames, fire, sparks, etc.). Do not smoke while using these materials.
2. Fumes from adhesive solvents or asphalt may be drawn into the building during installation through rooftop intakes. Take suitable precautions when using such products on an occupied building.
3. Consult container labels, Safety Data Sheets and Product Data Sheets for specific safety instructions for all products used on the project.
4. Follow all Occupational Safety and Health Administration (OSHA), National Roofing Contractors Association (NRCA) and other industry recommendations for fire and fall protection.

Cautions

1. Care must be used when installing fasteners to avoid possible conduits and other piping, both in and under the deck.
2. Store GenFlex TPO membrane in the original undisturbed plastic wrap in a manner to protect it from damage.
3. Do not use oil-based or bituminous-based roof cement, mastics or caulks in direct contact with GenFlex EZ TPO membranes.
4. Insulation must be properly stored and protected from ignition sources, moisture, and damage.
5. Store GenFlex EZ Fleece Backed TPO membrane in the original undisturbed plastic wrap in a manner to protect it from damage.

Correct Substrate Defects

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>
> GenFlex does not approve of or recognize the results of destructive testing by others for the purposes of project close-out or to satisfy contract requirements. Any damage caused by such testing may prevent GenFlex from issuing a warranty. GenFlex is not responsible for costs associated with repairs or enhancements performed to the roof system as a result of testing.

1. Defects in the substrate that require corrective action before work can commence should be brought to the attention of the General Contractor or Owner in writing and addressed by them.
2. For re-roofing applications, remove existing roof system components as specified by the project designer and documents. Components or conditions that are discovered during installation that could be detrimental to the performance of the new roof system should be brought to the attention of the project designer for corrective action.
3. Good roofing practice requires a complete removal of the existing roof to the structural deck if soundness and integrity of the existing roof system cannot be verified. Recovering an existing roof system with a new roof is an alternative to removing existing roof components. Nondestructive testing, however, in conjunction with examination of core cuts, must be performed to determine the condition of the existing roof system and decking.
4. The building owner or project designer is responsible for assuring that all wet or damaged insulation and/or substrates are removed and replaced in re-roofing applications. A reliable diagnostic technique is taking and evaluating a series

of roof core cuts. There are three other techniques available to make this determination by indirect means: nuclear moisture detection, infrared thermography, and electric capacitance. These techniques provide measurement of factors that can be associated with the presence of moisture, which can then be correlated to the roofing cuts to verify the results of the nondestructive testing.

- When the outside temperature is below 40 °F (4.4 °C), certain combinations of temperature and humidity may cause condensation on the surface of solvent-based adhesives and primers. If this condition occurs, discontinue their application. When the ambient air conditions no longer cause condensation on adhesive surfaces, re-apply additional adhesive or primer, and proceed. The consistency of sealants, adhesives, and primers will begin to thicken as the temperature drops. To minimize this, the following is recommended:
  - Start work with sealants, adhesives, and primers that have been stored between 60 °F and 80 °F (15.5 °C and 26.7 °C). Insulated heated boxes may be helpful.
  - Conduct test areas to determine if conditions will occur such as condensation on adhesives, or difficulty in dispensing adhesives or sealants.
  - Do not use heat guns or open flames to accelerate the drying of adhesives and/or primers.
  - If using water-based bonding adhesive for flashing applications, temperatures of substrates and atmosphere must be at least 40 °F (4.4 °C) and rising. Longer drying times should be expected for lower temperatures and higher humidity.

Rooftop Moisture

Ponding water, snow, frost, dew, and ice must be removed from the substrates/work surfaces before installing the EZ Fleece Backed TPO system.

Prepare Surfaces

Acceptable substrates to receive the EZ Fleece Backed TPO system must be properly prepared before membrane installation. The surface(s) must be relatively even, clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane. Rough surfaces that could damage the membrane must be overlaid with acceptable insulation.

Fill Voids

All surface voids of the immediate substrate to receive EZ Fleece Backed TPO system greater than ¼" (6 mm) wide must be filled with insulation or other approved filler.

Vapor Retarder

Install vapor retarder as specified by the project designer.

Concrete Additives

Concrete Additives can have a negative impact on the adhesion of asphaltic membranes and insulation products. The concrete supplier/installer should verify that any additives in the mix will not render the deck unsuitable for roofing application. GenFlex does not accept surface-applied curing compounds for warranted systems.

> ! GenFlex does not accept for warranty any concrete substrates that have been sealed with chemical sealers or silicon surface treatments.

Direct Membrane Overlays

Application of EZ Fleece Backed TPO membrane only roofing systems direct to existing aged, adhered single-ply roofing systems constitutes a special case, and requires specific surface preparation and installation steps.

- A licensed GenFlex applicator should inspect the existing system. Applicators should perform a thermal scan or core cuts to ensure the existing system is dry.
- Clean the existing roof with GenFlex VOC-Free Membrane Prewash according to its instructions followed by a 2,000-psi wash and an additional rinse. Keep the washer at a safe distance to prevent damage to the membrane.
- All wet and damaged components identified during the original inspection must be replaced with new insulation or cover board to match the height of the existing system. **Note: Do not adhere new EPDM or TPO membrane over the replaced areas. The EZ Fleece Backed TPO will be adhered directly to the new insulation or cover board in these areas.**
- All existing flashing materials—including base flashings and pitch pans—must be removed and replaced with new materials.

- Secure the existing membrane using GenFlex #15 WH Fasteners and 3" Round Insulation Plates.
- In areas where the membrane is loose and around penetrations, use one fastener every 2 Sq. Ft. to picture frame the area.
- Secure Base Tie-Ins and angle changes greater than 1:12 at 12" o.c. intervals.
- Replace protruding fasteners with new GenFast fasteners and plates.
- The membrane substrate must be completely dry, even, and free of any protrusions, debris, sharp edges, and foreign materials.
- GenFlex EZ Fleece Backed TPO 60-mil membrane minimum is required. This application requires a job start-up inspection, an interim inspection, and a final inspection.
- Install the new GenFlex EZ Fleece Backed TPO using Quick Dual in 6" bead spacing in the field, perimeter, and corners. **NOTE: Spatter application of Quick Dual is acceptable in the Field of the roof only for direct membrane overlays.**

WOOD NAILER LOCATION AND INSTALLATION

> ! **NOTE:** Because of recent EPA regulations regarding treated wood, new treatments for lumber may be highly corrosive to fasteners. Contact the fastener manufacturer for recommendations on fasteners if attaching nailers that have been treated with corrosive materials.

Wood nailers shall be installed as specified by the project designer or as noted in GenFlex details and the system design guide. GenFlex no longer requires the use of treated wood nailers. This is due to the new EPA requirements that have caused treated lumber to have more corrosive properties than the previous generation of wood treatments. If architectural specifications require the use of treated wood nailers, the following GenFlex requirements apply:

- Refer to the GenFlex Design Guide for the appropriate GenFlex fastener to be used for securing membrane into wood nailers.
- Nails penetrating treated wood nailers must be hot-dipped galvanized, meeting ASTM A653, Class G185 or as currently recommended by industry associations.
- Aluminum fasteners, flashings and accessory products must not make direct contact with treated wood nailers.
- Uncoated metal and painted metal flashing and accessories, except for 300-series stainless steel, must not make direct contact with treated wood nailers.
- When in doubt of the type of treatment of the wood nailer or its compatibility with a metal component, use EZ TPO membrane as a separator.

Chemical Treated Wood Nailer

Chemical treating for fire resistance or other purposes (other than pressure treating for rot resistance, i.e., CCA, ACZA, CBA, ACQ or other copper treatments) may affect the performance of the GenFlex membrane and accessories. Submit MSDS sheets with active ingredients listed for any chemically treated lumber not listed that will contact the membrane. Contact a Regional Technical Coordinator to evaluate compatibility.

Wood Nailer Grade

When wood nailers are used, GenFlex specifications require the use of wood that is kiln dried (Southern Pine, Douglas Fir) structural grade #2 or better, unless otherwise noted. While being stored on the roof, properly GenFlex, and cover non-treated wood to protect from the weather and keep dry. Nailers must be properly anchored to provide secure attachment through the warranty term. Nailers are not covered by the Roofing System Limited Warranty.

Size and Position of Wood Nailer

Total wood nailer height must match the total thickness of roof insulation installed, with a ⅛" (3 mm) gap between each nailer length and at each nailer intersection. Nailers shall be a min. thickness of 2" x 4" (51 mm x 102 mm) nominal 1½" x 3½" (38 mm x 89 mm) and exceed the width of any metal flange attached to it by a min. of ½" (13 mm). When nailers are stacked, end joints should be staggered a min. of 12" (305 mm) from the prior layer in straight runs.

Secure Wood Nailer

Wood nailers shall be firmly fastened to the deck or building. Mechanically fasten wood nailers to resist a minimum 200 lb (890 N) force in any direction typically 12" (305 mm) on center. Refer to attachment requirements as specified by the project designer.

Taper Wood Nailer
The wood nailer shall be tapered (as required) so the top surface of the wood nailer abutting the insulation matches the height of the insulation.

Pour-In-Place Decks
For new construction over poured-in-place decks or fill, and all recover projects, a waterproof separator membrane shall be placed between the non-treated lumber and the deck.

Wood Nailer by Others
Make these specifications and details available when others will install nailers. Work that compromises the integrity of the system may jeopardize the warranty.

For Additional Information
Please consult the NRCA Special Report, “Use of Treated Wood in Roof Assemblies”.

INSULATION ATTACHMENT

Compatibility for Metal Decks
Minimum 1½" (38.1 mm) insulation thickness is required over metal decks to ensure proper operation of induction welding equipment.

Install Insulation
Install only as much GenFlex insulation as can be covered with roofing membrane and completed/made watertight before the end of the day’s work and before the onset of inclement weather.

Fit Insulation
Neatly fit insulation at all penetrations, projections, and nailers. Insulation should fit loosely, filling any gaps greater than ¼" (6 mm) with acceptable insulation or filler. Edges of insulation boards running parallel with the deck should be fully supported by the deck’s top flange. Under no circumstance should the membrane be left unsupported over a space greater than ¼" (6 mm). Tapered insulation with acceptable facer for bonding must be installed around roof drains to provide proper slope for drainage as shown in GenFlex details.

Stagger Insulation Joints
When installing multiple layers of insulation, all joints between layers shall be staggered 6" (152 mm) min.

AIR OR VAPOR BARRIER INSTALLATION

Install Vapor Retarder (when specified):
Install a vapor retarder as specified by the project designer or as required by GenFlex.

Install Air Barrier (when specified):
Install an air barrier as specified by the project designer or as required by GenFlex.

VAPOR SHIELD INSTALLATION
GenFlex Vapor Shield Membrane is intended for use in applications where a vapor barrier is specified.

1. All substrates except metal decks must be primed with either GenFlex Vapor Shield Solvent Based Primer or Vapor Shield Water Based Primer.
2. Position Vapor Shield Membrane with min. 3" (76 mm) side laps and 6" (152 mm) end laps.
3. Shingle side laps up the roof slope wherever possible and stagger end laps min. 12" (305 mm).
4. Peel back approximately 5' (1.5 m) of release liner from the end of the roll and adhere it to the substrate.
5. Keeping the Vapor Shield flat and properly positioned, remove the remaining release liner on a 45° angle.
6. Roll the Vapor Shield with a 75 lb (34 kg) roller to fully mate the product to the substrate.
7. Refer to the GenFlex website (www.genflex.com) for details and additional product and installation information.

INSULATION INSTALLATION

Compatibility for Metal Decks

Minimum 1½" (38.1 mm) insulation thickness is required over metal decks to ensure proper operation of welding equipment.

Install Insulation

Install only as much GenFlex insulation as can be covered with roofing membrane and completed/made watertight before the end of the day's work and before the onset of inclement weather. On metal decks, edges of insulation boards running parallel with the deck should be fully supported by the deck's top flange. Do not cantilever insulation edges over deck ribs. Min. bearing surface: 1" (25 mm).

Fit Insulation

Neatly fit insulation at all penetrations, projections, and nailers. Insulation should fit loosely, filling any gaps greater than ¼" (6 mm) with acceptable insulation or filler. Under no circumstance should the membrane be left unsupported over a space greater than ¼" (6 mm). Tapered insulation with acceptable facer for bonding must be installed around roof drains to provide proper slope for drainage as shown in GenFlex details.

Stagger Insulation Joints

When installing multiple layers of insulation, all joints between layers shall be staggered 6" (152 mm) min.

ATTACHMENT OF INSULATION

Insulation Attachment - Mechanical

- Insulation must be attached using GenFlex Insulation Plates and Fasteners.
- If installed on a metal deck (where allowed by specification), the edge of the board parallel with the roof deck should be completely supported and fasteners must penetrate the top flange of the deck.
- When installing fasteners, care should be taken to avoid penetration of conduits and other piping below or encased in the deck.
- For insulation attachment please refer to the Product Data Sheets that reference the specific insulation being used. Use appropriate attachment patterns and fastening rates of that specific insulation and desired warranty term.
- For specific deck penetration requirements refer to the Product Data Sheet that references the specific fastener being used.
- When installing a multi-layer insulation assembly, the fastening pattern is determined by the type and thickness of the top layer of insulation and the performance criteria of the system. MAS systems with an adhered perimeter shall require the perimeter insulation to use fastening pattern used in an adhered membrane system as determined by the top layer of insulation.
- Multiple layers of insulation may be installed using a common fastener.
- Ensure that the fasteners are fully seated, but not overdriven. Use a properly adjusted clutch or depth sensing type of drill. Do not use a standard single speed drill. If a fastener must be removed after installation, do not reinstall fastener into same hole.
- Fastener pull tests should be conducted on existing decks or decks with conditions that are not "like new". Pull values below GenFlex requirements may require increased fastening, alternate system requirements or refusal of warranty coverage.

Insulation Attachment – Asphalt Attachment

- The substrate may require priming or a base sheet prior to installing the insulation. Refer to the Design Guide for specific information.
- The insulation shall be no larger than 4' x 4' (1.2 m x 1.2 m) panels.
- Insulation may be attached using a solid mopping of ASTM D 312 Type III or Type IV asphalt. GenFlex CG ISO and HD ISO may not be asphalt attached.
- The asphalt shall be at the manufacturer's stated EVT less ~ 25 °F (-4 °C) at the point of installation. Install enough asphalt to achieve complete adhesion, approximately 25-30 lb per 100 ft² (1.2-1.4 k/m²), depending on substrate.
- It is necessary to "walk" boards in to ensure complete adhesion to the substrate.
- Additional layers of insulation should be installed in the same fashion.

Insulation Attachment – Adhesive Attachment

- Insulation may be attached using GenFlex ISO Bond, One Step, or Quick Dual insulation adhesive.
- Apply the adhesive in strict accordance with the instructions provided with the product and the Product Data Sheets that are a part of GenFlex's Technical Database.
- It may be necessary to prime the substrate prior to installing the insulation adhesive with a prescribed primer.

- If installed on a metal deck (where allowed by specification), the edge of the board parallel with the roof deck flutes must be completely supported.
- The insulation or coverboard shall be no larger than 4' x 4' (1.2 m x 1.2 m).
- It is necessary to weight each board, using full pails of bonding adhesive or other available source of weight that will not damage the insulation board, at each corner, to ensure complete adhesion to the foam and substrate. Refer to the specific product Product Data Sheet for min. wait times.

GENFLEX EZ TPO FLEECE BACKED MEMBRANE INSTALLATION

Ensure proper welds are being achieved. If welding problems occur validate the following:
- Ensure the weld area is clean, dry, and free of contaminants prior to welding.
- If cleaning occurs completely dry area prior to welding.
- Perform test welds with scrap membrane to dial in the proper welding temperatures.
- Perform test welds prior to job start, after breaks in installation, and during temperature swings.

! NOTE: Once weld areas have cooled, validate weld is fully bonded and no gaps, fish mouths, pin holes or cold welds exist. Probe all welds to verify weld is completed properly.

NOTE: It is important to verify that welds completed at any transition from machine to hand application is completed properly. Validate weld transition is fully bonded and no gaps, fish mouths, pin holes or cold welds exist. Probe all welds to verify weld is completed properly.

NOTE: Lap membrane to cover membrane printed areas (lap lines, fastener location marks and product identifications printing) whenever possible.

Initial Membrane Positioning

Fold Method

1. Position the GenFlex Fleece Backed TPO membrane over acceptable substrate without stretching membrane starting at the low point of the roof. The membrane panels should be installed in a “shingle” fashion, so seams shed, and do not “buck” water flow.
2. Mark the substrate along the top edge of the panel as necessary by snapping chalk lines.
3. After positioning the EZ Fleece Backed TPO membrane on the substrate in the desired location, fold the membrane back on itself without wrinkling or moving the membrane, exposing the substrate.
4. Using the marks made previously, snap chalk lines.
5. Install the panel as described in this guide and additional instructions.

Unroll Method

1. Position the first panel of GenFlex EZ Fleece Backed TPO membrane over roof area to receive membrane. Position the membrane in “shingle” fashion so seams shed, and do not “buck” water flow. Note: When using the unroll method, it is recommended that the first panel be installed in the fold method to assure proper alignment of subsequent rolls being installed using the unroll method.
2. Unroll about 10-20 ft (3.05-6.10 m) of the membrane and adjust it to its final position. This “sets” the roll and insures that unrolling the “set” roll will result in proper membrane placement when unrolled. Setting pails of adhesive on membrane at this point will serve to temporarily ballast and keep the roll in its proper position before adhering.
3. Install the panel as described in this guide and additional instructions.

APPLICATION OF EZ FLEECE BACKED TPO MEMBRANE USING HOT ASPHALT

1. Apply asphalt (at the specified equiviscous temperature) to bonding substrate at a minimum of 30 lb per 100 ft² (1.46 kg/m²) +/- 3 lb per 100 ft² lb/100 ft² (1.46 kg/m²). Do not apply asphalt to the fleece or seaming area of the Fleece Backed TPO membrane. Apply asphalt completely and evenly on the bonding substrate, avoiding puddles, globs, and uncoated areas.

   Notes on application:
   - The asphalt shall be at the manufacturer’s specified equiviscous temperature (EVT) less 25 °F (14 °C) to 30 °F (17 °C) at the point of installation. Install a minimum of 30 lb per 100 ft² (1.46 kg/m²) and a maximum of 35 lb per 100ft² (1.70 kg/m²) asphalt to ensure that complete adhesion is achieved. Irregular substrates generally require additional quantities of asphalt to assure positive adhesion of the membrane.
   - Do not apply hot steep asphalt to substrate directly under the top or overlap portion of the seam. Do not walk on freshly applied Fleece Backed TPO membrane until asphalt has completely cooled.
   - Provide sufficient protection of Fleece Backed TPO membrane from asphalt handling equipment. Plan the roof installation to minimize traffic over new roof areas.

2. While the asphalt is still molten, mate the Fleece Backed TPO membrane to asphalt: Starting at one end of the fold, roll the membrane into the asphalt evenly, avoiding bridging and wrinkling. Because asphalt cooling rates vary due to ambient air temperatures, the time from asphalt application to membrane installation can vary greatly and must be adjusted as necessary to assure proper adhesion. When temperatures are such that rapid cooling is occurring, the "Unroll Method" should be used.
3. Without walking on the membrane, using a stiff bristled push broom, broom the freshly installed membrane to insure even and sufficient mating of the membrane into the asphalt.
4. Adjoining roll ends are to be butted to each other not lapped. Refer to GenFlex EZ TPO End Lap detail for specific requirements.
5. Next, unroll adjacent panels completely, lapping the selvedge edge over the previous panel to allow for a minimum 1½" (38.1 mm) robotic heat welded seam or 2" (50.8 mm) hand welded seam. Once aligned in the final position, repeat steps used above.

> ! **NOTE:** It is important to verify that welds completed at any transition from machine to hand application is completed properly. Validate weld transition is fully bonded and no gaps, fish mouths, pin holes or cold welds exist. Probe all welds to verify weld is completed properly.

APPLICATION OF FLEECE BACKED TPO MEMBRANE USING QUICK DUAL OR QUICK JET ADHESIVE

General Conditions

1. Install only as much EZ Fleece Backed TPO membrane as can be completed and made watertight during the working day.
2. Substrates and ambient conditions shall exceed 40 °F (4 °C) and rising.
3. Substrates to receive GenFlex Quick Dual shall be above 40 °F and rising, clean, smooth, dry, free of sharp edges, loose and foreign materials, oil, grease, and other contaminates.
4. Apply GenFlex Quick Dual to bonding substrate only at a coverage rate range of 1,168 – 3,500 ft²/set, depending on the application and porosity of the substrate. Do not apply Quick Dual adhesive to the fleece or seaming portion of the Fleece Backed TPO membrane.
5. Quick Dual is available in 2-part canister system, with a 49 lb (22.2 kg) and 45 lb (20.4 kg) canister and can be dispensed using the provided hose and gun assembly, through a static mixing tip as a two-component low rise polyurethane foam adhesive in beads or ribbons, or spatter applications.
6. Quick Jet is available in a 1-part canister system, with a 45-48 lb (20.4 – 21.7 kg) canister that can be dispensed using a GenFlex approved hose and gun assembly (sold separately), through a tip designed to provide a "fan" type spray application.
7. Apply GenFlex Quick Dual or Quick Jet adhesive evenly on the bonding substrate, avoiding puddles, globs, and uncoated areas.

Membrane Installation – Quick Dual (Low Rise Foam)

1. After allowing the pre-positioned EZ Fleece Backed TPO Membrane to relax, back-roll the membrane panels to expose the substrate to receive Quick Dual adhesive. (Do not "butterfly" large areas of roof membrane during Quick Dual Adhesive application.) Take care not to move or otherwise disturb the fleece backed membrane from its final intended position while back-rolling.
2. Dispense Quick Dual onto the substrate as follows:
   - Bead Application: Apply Quick Dual Adhesive on the substrate in ¾" - 1" (19- 25 mm) wide beads, spaced maximum 12" (305 mm) on center.
   - Spatter Application: Spatter Quick Dual at a rate of 60-70% coverage over the horizontal substrate and 75-85% when used at base tie-in locations. Expect to achieve approximately 2200 ft² to 2350 ft² (204 m² to 218 m²) per canister set.
3. Do not apply Quick Dual Adhesive directly to EZ Fleece Backed TPO Membrane. Keep lap areas of the membrane clean and free of Quick Dual overspray. Remove any Quick Dual from the seam area before mating the seam, or strip in the contaminated seam area.
4. Allow Quick Dual Adhesive to rise in height and reach open/mate condition. Mate the EZ Fleece Backed TPO membrane to the substrate before a skim coat develops on the adhesive (see product PDS for additional information).
5. Immediately after setting the membrane in the Quick Dual adhesive, broom the membrane to initiate adhesion, then roll thoroughly using a 75 lb to 150 lb (34 kg to 68 kg) roller. It is important that the freshly installed membrane and substrate remain in contact with the Twin Jet adhesive until the adhesive sets to ensure proper adhesion.

Coverage Rate and Reaction Time for Quick Dual Adhesive

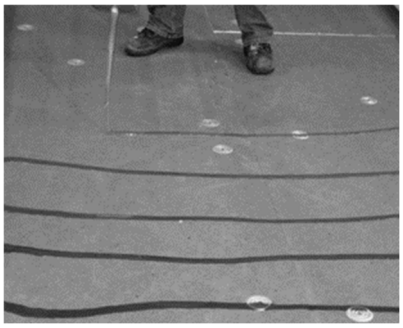
Coverage Rates for Bead Application

Dispense a continuous mixed bead width of ¾" (19 mm) to 1" (25 mm) from the canisters to the substrate. The coverage rates will vary depending on the bead spacing:

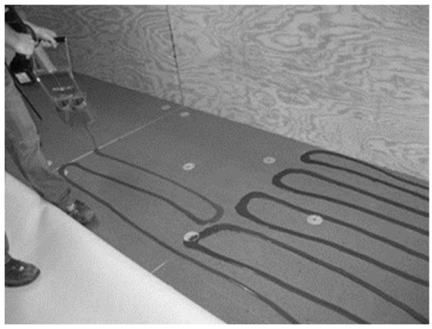
- 4" o.c. bead spacing coverage rate: 1,168 ft² (108.3 m²) per canister set
- 6" o.c. bead spacing coverage rate: 1,750 ft² (162.3 m²) per canister set
- 12" o.c. bead spacing coverage rate: 3,500 ft² (325 m²) per canister set

NOTE:

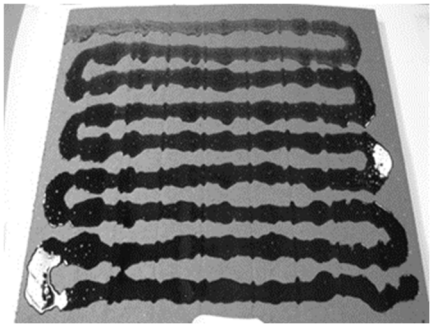
- Coverage rate may be reduced due to irregularities in substrates.
- Coverage rates will vary if the bead spacing is increased.
- These typical coverage rates are applicable when the Quick Dual is applied in the appropriate bead spacing in a serpentine pattern at a bead width of ¾" to 1" (19 mm to 25.4 mm).
- The coverage rate for Quick Dual at the roof perimeter and corner sections may vary according to roof system design requirements.



Bead application of Low Rise Foam (LRF) on mechanically attached Polyisocyanurate insulation board @ 12" o.c.



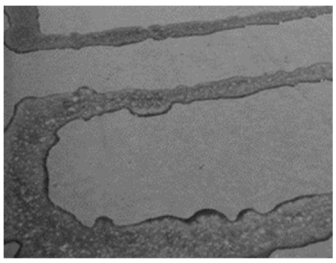
Bead application of LRF on mechanically attached Polyisocyanurate insulation board @ 6" o.c.



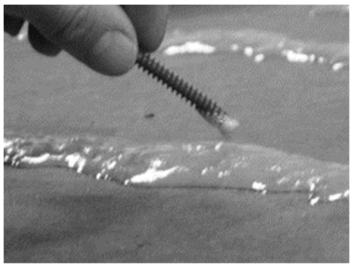
Freshly applied beads of LRF on mechanically attached Polyisocyanurate insulation board @ 4" o.c.

Reaction Time

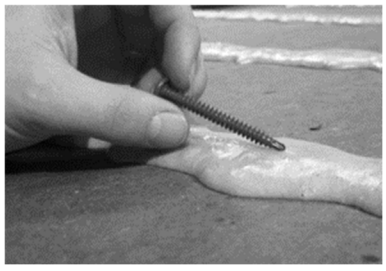
When applying Quick Dual, the EZ Fleece Backed TPO membrane must be placed into adhesive shortly after it has reached its maximum rise, typically after 3-5 minutes, however these times will vary with ambient conditions. The adhesive should "string" before placement of membrane. Note that the membrane must be placed into the adhesive before it reaches tack free state (when the adhesive skims over).



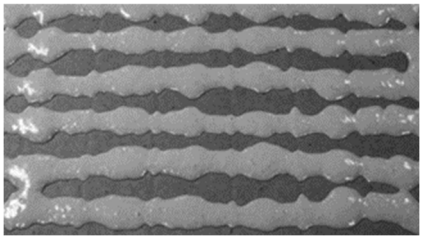
STEP 1: Freshly applied LRF - cream stage



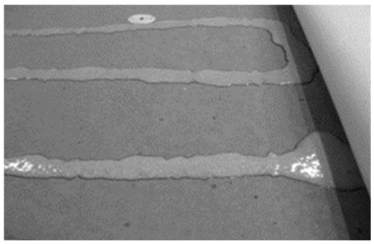
STEP 2: Allow LRF to rise (3 to 5 minutes)



STEP 3: Tack-free stage – ready for application of EZ Fleece Backed TPO Membrane (after 5 -7 minutes)



Close up of 4" Bead Spacing



Close up of 12" Bead Spacing

Roll EZ Fleece Backed TPO into LRF Adhesive

Apply pressure to the top surface of the membrane to ensure contact with a roller (not to exceed 150 lb/68 kg)

Table 2: Perimeter and Corner Enhancements for Quick Dual Adhesive – Bead Application

PERIMETER AND CORNER ENHANCEMENTS FOR QUICK DUAL ADHESIVE – BEAD APPLICATION			
Building Height	**Bead Spacing (Perimeter)**	**Bead Spacing (Corner)**	**Bead Spacing (Field)**
0-25'	6" (152.4 mm) o.c – 4' (1.22 m) perimeter	4" (101.6 mm) o.c.	12" (305 mm) o.c.
25-50'	6" (152.4 mm) o.c – 8' (2.44 m) perimeter	4" (101.6 mm) o.c.	12" (305 mm) o.c.
50-75'	6" (152.4 mm) o.c – 12' (3.66 m) perimeter	4" (101.6 mm) o.c.	12" (305 mm) o.c.
75-100'	6" (152.4 mm) o.c – 16' (4.88 m) perimeter	4" (101.6 mm) o.c.	12" (305 mm) o.c.
Greater than 100'	Contact a GenFlex Regional Technical Coordinator for bead spacing requirements.		

NOTE:

- When following local building code or regulatory agency's requirements, the bead spacing of Quick Dual Adhesive in the perimeter and corner areas may differ from the table above. The coverage rate for Quick Dual at the roof perimeter and corner sections may vary according to roof system design and wind uplift requirements. Please refer to GenFlex's code approval guide or contact a GenFlex Regional Technical Coordinator at 1-800-428-5411 for more information.
- Use a ¾ to 1" (19-25 mm) wide bead
- Membrane Only Roofing Systems over existing adhered single-ply membranes require F/P/C: 6" (152.4 mm) o.c. attachment rate. Spatter attachment is acceptable in the Field of the roof only in direct membrane overlay applications.

Table 3: Acceptable Substrates for EZ Fleece Backed TPO Installed with Quick Dual Adhesive

ACCEPTABLE SUBSTRATES FOR EZ FLEECE BACKED TPO INSTALLED WITH QUICK DUAL ADHESIVE		
Deck / Substrate	**Acceptable**	**Note**
Structural Concrete (New)	✓	New poured decks must be completely dry prior to application of Quick Dual.
Structural Concrete (Existing)	✓	Existing decks should be dry and free of existing moisture prior to application of Quick Dual.
Plywood and OSB	✓	
Cementitious Wood Fiber	N/A	
Gypsum Decks	✓*	
Lightweight Concrete[1]	✓	
Coal Tar Pitch Built-up Roofs	N/A	GenFlex ½" HD ISO cover board required over coal tar BUR.
New or Existing Asphalt and Modified Bitumen Roofs (Mineral or Smooth Surfaced)[3]	✓	Any residual asphalt must be cleaned and scraped as smooth as possible.
Existing Single-Ply Roofs	✓	Existing adhered EPDM or TPO roof systems must be thoroughly cleaned prior to application of adhesive
SBS Base Sheets	✓	
Insulations[2]		
GenFlex GL ISO or GenFlex CG ISO	✓	

Wood Fiberboard	✓	
Cementitious Wood Fiber	✓	
GenFlex ½" HD ISO	✓	
DensDeck Products	✓	DensDeck Prime, DensDeck StormX Prime
SECUROCK Products	✓	SECUROCK Gypsum-Fiber, UltraLight Glass-Mat
Expanded / Extruded Polystyrene	N/A	
Fiberglass	N/A	
Perlite	N/A	

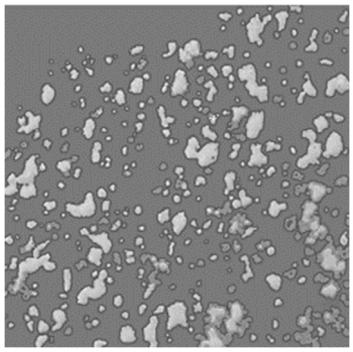
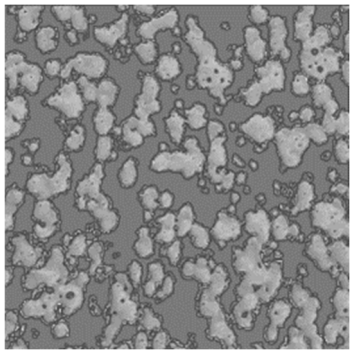
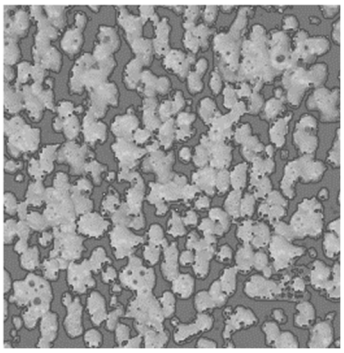
NOTE:
1. Acceptable Lightweight concrete substrates include cellular or air-entrained concrete. Lightweight concrete substrates with aggregate (such as perlite or vermiculite) are not acceptable.
2. See specific Product Data Sheets for additional information.
3. Staining of membrane may occur if installed over asphalt products.

✓ = Acceptable; N/A = Not Acceptable

Spatter Coverage Application

1. After allowing the pre-positioned GenFlex EZ Fleece Backed TPO Membrane to relax, back-roll the membrane panels to expose the substrate to receive Quick Dual adhesive. (Do not "butterfly" large areas of roof membrane during Quick Dual adhesive application.) Take care not to move or otherwise disturb GenFlex EZ Fleece Backed TPO Membrane from its final intended position while back-rolling.
2. Dispense Quick Dual in a spatter application onto the substrate as follows:
    - Spatter Quick Dual at a rate of 60-70% coverage over the horizontal substrate and 75-85% when used at base tie-in locations. Expect to achieve approximately 2,200 ft² to 2,350 ft² (204 m² to 218 m²) per canister set.
3. Do not apply Quick Dual adhesive directly to GenFlex EZ Fleece Backed TPO Membrane. Keep lap areas of the membrane clean and free of Quick Dual adhesive overspray. Remove any adhesive from the seam area before mating the seam, or strip in the contaminated seam area.
4. Allow Quick Dual adhesive to rise in height and reach open/mate condition. Mate the membrane to the substrate before a skim coat develops on the adhesive (see product PDS for additional information).
5. Immediately after setting the membrane in the Quick Dual adhesive, broom the membrane to initiate adhesion, then roll thoroughly using a 75 lb to 150 lb (34 kg to 68 kg) roller. It is important that the freshly installed membrane and substrate remain in contact with the Quick Dual adhesive until the adhesive sets to ensure proper adhesion.

Quick Dual Spatter Application Examples

TOO LITTLE	60 – 70% COVERAGE	75 – 85% COVERAGE
		

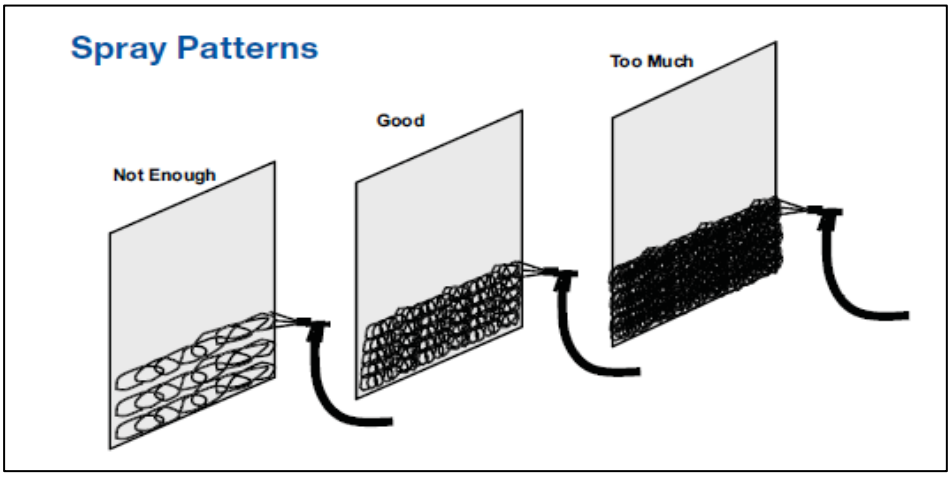
Cautions and Warnings When Working with Quick Dual Adhesive

- Review applicable Safety Data Sheets prior to use.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with Quick Dual
- At the start and throughout each workday, create test samples with Quick Dual to verify proper mixing, set-up and overall adhesion of insulation to substrate before proceeding
- Avoid contact with eyes. Wear safety glasses with side shields.
- Avoid breathing vapors. A Self-Contained Breathing Apparatus or Respirator should be used during limited ventilation periods.
- Avoid contact with skin. Wear gloves when dispensing. Wash hands thoroughly after handling.
- Close canister valves when not in use.
- Do not sit or stand on cartons or canisters.

- Do not expose product to open flame or temperatures above 100 °F (38 °C).
- Canisters and contents must be brought to temperature between 70 °F (21 °C) – 90 °F (32 °C) for use.
- Insulation boards shall not exceed 4' x 4' (1.2 m x 1.2 m).
- Replace mix tip and extension tube after 30 minutes of non-use.
- Keep two-component canisters in upright position while dispensing adhesive.
- Do not pull or lift canisters by the hoses.
- Do not dispense adhesive in areas of spark, open flame or other ignition sources. Do not smoke in areas where Quick Dual adhesive is being applied.
- When using a full canister set, pull the trigger gradually until you reach the desired pressure. Pulling the trigger too aggressively could result in safety risk.
- Do not transfer used hoses to a new canister set in order to prevent cross-contamination.

Adhere Membrane Using GenFlex Quick Jet Spray Adhesive

1. Assembling Quick Jet Spray Applicator:
   a) Connect the hose to the gun and tighten fitting securely with wrench. Connect the other end of the hose to the cylinder outlet and tighten fitting securely with wrench. Use caution not to cross-thread the connections.
   b) Open the cylinder valve fully, checking all connections for leaks. Tighten if necessary.
   c) Once the valve has been opened, do not close the valve until the cylinder is completely empty or the hose and spray gun are to be removed and proper cleaning is performed.
   d) The spray tip may require periodic cleaning.
   e) Agitate the Quick Jet canister for 30 seconds prior to use. Periodically shake the canister during application to maintain canister pressure and produce optimal fan spray pattern.
2. Dispensing Notes:
   a) Maintain the trigger fully open while applying adhesive. Do not spray in short bursts.
   b) Keeping the spray nozzle perpendicular to the substrate, picture-frame the spray area with adhesive and then go back and forth with an approximate 50% overlap to fill in the area.
   c) For all smooth and fleece backed membranes a two-sided application of Quick Jet is required. Reference the “Good” spray pattern below After allowing the pre-positioned GenFlex EZ Fleece Backed TPO Membrane to relax, back-roll the membrane panels to expose the substrate to receive Quick Jet Spray adhesive. (Do not “butterfly” large areas of roof membrane during Quick Jet Spray Adhesive application.) Take care not to move or otherwise disturb GenFlex EZ Fleece Backed TPO membrane from its final intended position while back-rolling.



   For EZ Fleece Backed TPO membrane: spray with the trigger fully open, at a distance of 12" – 18" (305 mm – 457 mm), and at a rate of approximately 0.5 – 0.75 ft/sec (approximately 0.152 – 0.228 m/sec) to obtain the “Good” spray pattern. Apply Quick Jet adhesive to the fleece backed membrane first to allow sufficient flash-off time.
3. Coverage rate is approximately 1,000 ft² (93 m²) per canister for smooth membranes, and approximately 750 ft² (69.7 m²) per canister for fleece backed membrane.
4. Keep membrane lap areas clean and free of Quick Jet adhesive overspray and remove any adhesive from the seam area with GenFlex Solvent Cleaner or All Purpose LVOC Cleaner before mating the seam.
5. Allow solvent to flash-off from Quick Jet adhesive prior to mating the two surfaces. Perform “touch-push test” in areas of heavier application to verify the adhesive is tacky but does not transfer to finger.

6. Flash-off time is typically 6 – 8 minutes with a working time maximum of 30 minutes. These times will vary depending on ambient conditions.
7. Carefully mate the membrane to the substrate. Broom the membrane, then roll the membrane thoroughly using a 75 lb (34 kg) to 150 lb (68 kg) roller for horizontal surfaces and a silicone hand roller for vertical surfaces.

MEMBRANE SEAMING

Clean the Lap Splice Area

Wearing chemical resistant gloves and using a clean white cotton rag dampened with GenFlex Solvent Cleaner or All Purpose LVOC Cleaner, thoroughly clean the selvedge edge area of the top sheet and an area on bottom sheet at least 2¾" inches (69.8 mm) wide if the seam area has become contaminated with dirt, debris, moisture or other contaminates. If contaminated with asphalt, the finished seam must be stripped in with an 8" wide piece of EZ TPO membrane of the same or greater thickness. Membranes left exposed or unwrapped for more than 12 hours must be cleaned before any welding activity.

Welding Equipment and Test Splice Requirements

- The speed of the welding machine shall be adjusted to provide proper seam strength based on ambient conditions.
- Ample power source shall be provided to heat welding equipment. A generator dedicated to the heat welding equipment shall be used on all installations. For specifics, consult the welder manufacturer's data sheets.
- When weather conditions vary, adjustments to the welding machine must be made. It is recommended that adjustments are made, and test welds are performed. This should be done using spare or test material BEFORE starting welding of the finished roofing material to ensure that the welding machine produces an acceptable weld.
- In addition, there shall be destructive tests performed daily; at the beginning of welding and after interruptions in the welding process (such as power failure; welder shut down; job site condition change; after break or lunch). There should be periodic checks throughout the process to ensure a weathertight seal.

Seam Guide

Adjust the wheel guide by placing unit on top of the membrane with the outer edge of the Drive/Pressure wheel in contact with the membrane edge.

Hot Air Weld Lap Splices

Horizontal field splices, these areas are to be welded first:

- Wherever possible, all field splices on the horizontal surface (including flashing) should be completed using an automatic heat welder that has been designed for hot air welding of thermoplastic membranes. Refer to the welding equipment requirements in the Product Data Sheets for minimum requirements. For specifics, consult the welder manufacturer's data sheets.
- Seam width requirements: Seams made with the automatic welder shall be a minimum of 1 ½" (38.1 mm) wide. Seams made with hand welders shall be a minimum of 2" (50.8 mm) wide. Use silicone hand rollers to assure proper mating of surfaces as hand welding proceeds. **NOTE: It is important to verify that welds completed at any transition from machine to hand application is completed properly. Validate weld transition is fully bonded and no gaps, fish mouths, pin holes or cold welds exist. Probe all welds to verify weld is completed properly.**
- Vertical field splices: On vertical surface welds, or where an automatic welder is not practical, hand welders shall be used.

End Splices

End lap splices are applied over field membrane sections where no selvedge edge is available, after the side lap splice is completed. Using a piece of GenFlex EZ TPO cut into a minimum 8" (203.2 mm) wide strip of standard (non-fleece) 60 mil membrane, splice the butted end joint by welding the strip along its entire length. Seal any cut edges as shown in lap splice detail.

Seam Inspection

Probe all completed welds with a dull cotter pin puller type tool to verify seam integrity. Do not probe welds until they have cooled. Any welds found to be insufficiently fused need to be repaired on a daily basis.

T-Joint Patches

T-joint patches shall be installed at all intersections of field seams when membrane is greater than 0.045" (1.14mm) Membrane to receive T-Patch cover shall have the edged eased by heating and rolling to minimize any step. Refer to Lap Splice and T-Joint Detail Section of GenFlex's Technical Manual.

Cut Edge Sealant

All membrane lap edges with exposed scrim (cut edges) shall be sealed with GenFlex EZ TPO Cut Edge Sealant or EZ TPO Cut Edge Caulk LVOC.

ADDITIONAL MEMBRANE SECUREMENT AND BASE TIE-IN FLASHING

Provide membrane securement: Secure the membrane at all locations where the membrane undergoes an angle change greater than 1"/12" (25.4 mm in 304.8 mm). This typically occurs at: roof edges; curbs; wall intersections; parapets, etc. Mechanically fasten with GenFast Seam Plates using GenFast Fasteners applied either horizontally into the deck or vertically into the wall in accordance with GenFlex Base Tie-In Details. Refer to the GenFlex TPO Design Guide or GenFlex Product Data Sheets to determine the applicable fastener and penetration requirements for specific substrate conditions.

FLASHING - PENETRATIONS

General

- Remove all loose existing flashing (i.e., lead flashings, bituminous materials, mastics, etc.).
- Flash all penetrations that pass through the GenFlex EZ TPO membrane in accordance with GenFlex standard EZ TPO details as indicated in the EZ TPO Design Guide.
- The flashing seal must be made directly to the penetration.

Pipes, Round Supports, Structural Steel Tubing, etc.

- Flash pipes with GenFlex EZ TPO Pre-molded Pipe Flashing where practical.
- Refer to the GenFlex Product Data Sheet for minimum and maximum pipe diameters that can be successfully flashed with GenFlex EZ TPO Pre-Molded Pipe Flashings.
- Flash inside and outside corners with GenFlex pre-molded products per GenFlex details.
- GenFlex TPO Non-Reinforced Flashing is only to be used at non-90° degree inside and outside corners, "T" joints, and field wrapped pipe boots and other special conditions where allowed by GenFlex details.

Roof Drains (Cast Iron Only)

1. Remove all existing flashing (including lead flashing), roofing materials and cement from the existing drain in preparation for EZ TPO membrane and GenFlex Water Stop.
2. Provide a clean even finish on the mating surfaces between the clamping ring and the drain bowl.
3. Install tapered insulation with acceptable bonding surfaces around the drain to provide a smooth transition from the roof surface to the drain. Slope into drain shall not exceed 1"/12" (25.4 mm in 304.8 mm).
4. A minimum 4' X 4' (1.2m x 1.2m) EZ TPO membrane sheet (non-fleece backed) shall be centered over the drain area per detail EZTPO-FB-D-01 because EZ Fleece Backed TPO membrane cannot be sealed properly to roof drains use EZ TPO membrane at these locations.
   - When using Asphalt to apply EZ Fleece Backed TPO, stop asphalt at end of the membrane. Use appropriate adhesive in drain area per GenFlex details.
5. Position the EZ TPO membrane, then cut a hole for the roof drain to allow a ½" (12.7 mm) minimum and ¾" (19.1 mm) maximum inside the clamping ring.
6. Using a punch, or other suitable device, make round holes (sized to receive clamping bolts) in the membrane to align with clamping bolts. Do not cut the membrane back to the bolt holes.
7. Install GenFlex Water Stop on the clamping ring seat flange below the membrane. Use a minimum of one half of a 10-ounce (295 CC) tube for a 10" (254 mm) drain.
8. Install the roof drain clamping ring and clamping bolts. Tighten the clamping bolts to achieve constant compression of the Water Stop sealant.
9. Contact GenFlex Regional Technical Coordinator for flashing of other drain types.

Pipe Clusters and Unusual Shaped Penetrations

1. Fabricate GenFlex EZ TPO Coated metal penetration pockets to allow a minimum clearance of 1" (25.4 mm) between the penetrations and all sides.
2. Secure GenPocket T penetration pockets and flash per current GenFlex details.
3. Fill penetration pockets with GenFlex Pourable Sealer to shed water away from penetrations. GenFlex Pourable Sealer shall be poured to a depth of 2" (51 mm) minimum.
4. GenFlex TPO Non-Reinforced flashing may also be used for some details.

“Hot” Pipes (greater than 140 °F [60 °C])

- Protect EZ TPO components from direct contact with steam or heat sources that exceed the in-service temperature of 140 °F (60 °C).
- Pipes and roof penetrations exceeding 140 °F (60 °C) shall be flashed to an intermediate, or separator, sleeve to protect EZ TPO components from these direct heat sources.

Flexible Penetrations

- Flexible roof penetrations shall be flashed by means of a watertight “gooseneck”.
- Watertight “gooseneck” shall be set in GenFlex Water Stop, secured to deck, and flashed in accordance with GenFlex Details.

Scuppers

1. Remove any existing scuppers and install a new scupper sleeve fabricated from GenFlex EZ TPO Coated metal.
2. Secure new scupper to the structure.
3. Flash new scupper in accordance with GenFlex Details.

Expansion Joints

- Install expansion joints in accordance with GenFlex details where specified by project designer.
- Flash expansion joints in accordance with GenFlex details.

FLASHING – WALLS, PARAPETS, MECHANICAL EQUIPMENT CURBS, ETC.

General

- Using the largest piece(s) of continuous GenFlex EZ TPO (non-fleece) membrane practical, flash all walls, parapets, curbs, etc, to the height specified by the project designer.
- Evaluate bonding substrate; add acceptable bonding substrate as required: The following substrates require the installation of ⅝" (15.9 mm) exterior grade or “Wolmanized” plywood anchored in accordance with project designer’s requirements: Interior Gypsum board; Stucco; Cobblestone; Textured masonry, exterior gypsum panels, Corrugated metal panels; all other uneven or loose substrates.

Curb and Base Flashing with EZ TPO Membrane

1. Apply EZ TPO Bonding Adhesive at about the same time to both the membrane flashing and the surface to receive the flashing at about the same time to allow approximately the same drying time.
2. Allow flash off period for bonding adhesive.
3. Test bonding adhesive for readiness. Touch the bonding adhesive surface with a clean, dry finger to be certain that the adhesive does not stick or string. As you are touching the adhesive, push straight down to check for stringing, and push forward on the adhesive at an angle to ensure that the adhesive is ready throughout its thickness. If either motion exposes wet or stringy adhesive when the finger is lifted, then the adhesive is not ready for mating. Flash off time will vary depending on ambient air conditions. This is especially true for water-based adhesives. GenFlex Water-based Bonding Adhesive will change appearance from opaque to nearly transparent, indicating it is ready for mating. Coverage rate will differ with varying substrates and/or climatic conditions.
4. Roll membrane flashing up the vertical bonding adhesive coated substrate evenly and carefully taking care to avoid wrinkles.
5. Broom the membrane flashing after mating using a stiff push broom to insure proper contact and mating.
6. Complete the splice between the membrane base flashing and the main roof EZ Fleece Backed TPO membrane by hot air welding. Complete lap splices in accordance with GenFlex details.
7. Install termination of base flashing in accordance with GenFlex Details.
8. TPO membrane can be installed up to a maximum height of 72” (182.9 cm) without intermittent attachment as long as the following conditions are present:
    - Wall surface is smooth without noticeable high spots or depressions: such as plywood, poured or pre-cast concrete, hollow core block or masonry walls where mortar joints are flush with masonry surface, **AND**
    - The termination of membrane flashing is a Termination Bar or membrane flashing extending completely under coping to the outside wall to the outside face edge.
    - Intermittent termination IS REQUIRED:
        i. When flashing heights exceed 72” (182.9 cm), intermittent termination is required at 36” o.c (91.44 cm) on center beyond the maximum height.
        ii. When the wall surface does not meet the conditions stated above, intermittent termination is required at 36” o.c (91.44 cm).

iii. When the wall or substrate is non-structural (see detail EZTPO-T-26), intermittent termination is required at 36” o.c (91.44 cm).

FLASHING – GRAVEL STOPS OR ROOF EDGE METALS

Factory Fabricated Coping or Edge Metal

- Install in accordance with SMACNA and manufacturer details.

EZ TPO Coated Metal

- Install in accordance with GenFlex details.
- When using EZ TPO Coated Metal perimeter EZ Fleece Backed TPO sheet must be placed parallel to metal edge with salvage edge positioned to weld to the edge metal.
- Coated metal edge detail must provide enough room to permit “T” patch or strip-in of details with sufficient width wood nailer for support.

Edge Metal – Special Conditions and Flashed Using TPO Peel and Stick Flashing

1. Install gravel stop metal as specified by project designer. Flange of gravel stop metal shall be flashed using TPO Peel and Stick Flashing.
2. Apply GenFlex TPO Clear Primer or Clear Primer LVOC to flange of gravel stop/edge metal with GenFlex Scrub Pads and handle with long back and forth strokes with heavy pressure on splicing area to receive the TPO Peel and Stick Flashing. Stir the TPO Clear Primer or Clear Primer LVOC before and during use. Dip the GenFlex Scrub Pads into TPO Clear Primer or Clear Primer LVOC, keeping the pad flat. Change pads every 200' (61 m) or when pad no longer holds the proper amount of primer.
3. Allow a brief flash-off time (usually less than 10 minutes) for the TPO Clear Primer or Clear Primer LVOC before applying TPO Peel and Stick Flashing.
4. Install TPO Peel and Stick Flashing centered over the flange edge of the gravel stop/edge metal using. Roll the TPO Peel and Stick Flashing using a silicone coated rubber roller immediately after installation of TPO Peel and Stick Flashing.

MEMBRANE REPAIR

Repair Punctures/Cuts/Damage to EZ Fleece Backed TPO Membrane

- The repair material shall be EZ TPO membrane heat welded, extending 2" (50.8 mm) minimum past the damaged area in all directions. Round all corners of the repair piece. Example: A pinhole will require a minimum 4" x 4" (101.6 mm x 101.6 mm) patch.
- Clean the membrane prior to completing repair. When making a repair to EZ Fleece Backed TPO membrane that has been in service for some time, it is necessary to remove accumulated field dirt. Scrub the membrane with a scrub brush and warm soapy water, followed by rinsing with clear water and wipe with clean cotton rags. For membranes with significant accumulation of dirt, cleaning with acetone and clean cotton cloths may be required. GenFlex Solvent Cleaner or All Purpose LVOC Cleaner may then be used.
- Splice new membrane to existing using approved splicing procedures.

Temporary Closure (Not Warranted by GenFlex)

- Temporary closures to ensure that moisture does not damage any completed section of the new roofing system are the responsibility of the roofing contractor.
- Completion of flashings, terminations, and temporary closures should be completed as required to provide a watertight condition.
- Any material contaminated by temporary closure shall be removed and discarded before resumption of installation.

Roof Walkways

- Install walkways in locations as specified by the project designer in accordance with GenFlex requirements.
- Walkways shall consist of 30" (762 mm) wide GenFlex EZ TPO Walkway Pads.
- Heat weld the edges of the walkway material to the EZ Fleece Backed TPO membrane using approved welding procedures. See the EZ TPO Walkway product data sheet for additional information.

Sheet Metal Work

- For specific installation instructions for the GenFlex approved prefabricated metal edge treatments, contact the GenFlex Regional Technical Coordinator for more information.

- For all other sheet metal work not supplied by GenFlex, refer to fabrication and installation requirements established by the project designer.

CLEAN UP

General

If required by the specifier to ensure the aesthetics of the GenFlex EZ TPO membrane, (i.e., handprints, footprints, general traffic grime, industrial pollutants, and environmental dirt), the membrane may be cleaned by scrubbing with non-abrasive soapy water and rinsing the area completely with clean water. GenFlex Solvent Cleaner or All Purpose LVOC Cleaner can be used sparingly to clean small areas of membrane.

Cleaning Procedure for In-Service Thermoplastic Membrane

1. Ensure that the existing area to which new thermoplastic membrane is to be mated is clean, smooth, and free of all contaminants.
2. Thoroughly clean this area with detergent and water. It is recommended that a water-soluble granular cleaner be used such as T-M-T brand, which is manufactured by the U.S. Borax Company. Liquid cleaners tend to leave a film residue that can interfere with heat-weld quality. The cleaner must be completely rinsed/removed from areas where welding may occur and allowed to completely dry before any welding is performed.
3. It is recommended that a polypropylene scouring pad be used for maximum cleaning. This is the type manufactured by 3M. Coupled with the granular detergent it allows for enough abrasive action to thoroughly clean the sheet without causing damage to it.

> **NOTE: DO NOT USE STEEL WIRE BRUSHES UNDER ANY CIRCUMSTANCES.**

4. It is imperative that the area be thoroughly rinsed several times to remove all cleaner and contaminants before heat welding. Further, the area must be allowed to dry completely before continuing. If blisters form upon heat welding, the area has not been allowed to dry sufficiently and heat welding should discontinue.
5. After allowing to dry sufficiently, the heat-welding areas on the existing membrane shall be cleaned a second time with denatured alcohol and wiped clean with a clean cotton rag to remove all surface impediments and eliminate any surface curing which may have occurred.

> **AGAIN: THOROUGH CLEANING WITH DENATURED ALCOHOL IS THE MOST CRITICAL PROCEDURE TO ENSURE THE PERFORMANCE OF THE NEW TO EXISTING MEMBRANE HEAT-WELD.**

6. All heat welding shall be in accordance with GenFlex details and specifications as published. Keep in mind that the existing sheet is aged, which may call for more allowance. Care should be taken not to overheat and scorch either membrane.
7. Upon completion, allow newly welded seams to cool.

> **IMPORTANT: ALL WELDS MUST BE THOROUGHLY PROBED AND CHECKED FOR COMPLETE INTEGRITY AND REWELDED OR STRIPPED IN AS REQUIRED.**