Elevate™ UltraPly™ TPO SA

Roofing Systems Application Guide

May 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 Elevate Regional Technical Coordinator prior to its use.

Table of Contents

General 3
Preparation 3
Membrane Attachment 3
Membrane Seaming 4
Base Tie-In, Wall, and Curb Flashing 5
Clean Up 6

General

This section of Elevate's Technical Database outlines instructions for the installation of Elevate's UltraPly TPO SA or UltraPly Platinum TPO SA membrane with SecureBond™ Technology. Reference to the TPO Design and Application Guides, Technical Information Sheets, details, and other sections of Elevate Technical Specifications is necessary to ensure that the involved products and finished roof system are installed in compliance with Elevate requirements and therefore eligible to receive a Red Shield™ Warranty.

Preparation

	It is the roofing contractor's responsibility to ensure that the substrate is acceptable for the Elevate roof system.
!	Elevate 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 Elevate from issuing a warranty. Elevate is not responsible for costs associated with repairs or enhancements performed to the roof system as a result of testing.

Approved substrates must be clean, dry, and free of foreign material such as grease and any debris which could inhibit adhesion. This may require cleaning with a broom or blower. An acceptable Elevate Primer (Single-Ply QuickPrime Primer, Single-Ply LVOC Primer or Elevate Jet Bond Spray Adhesive) is required for vertical application and membrane overlaps, but no primers or adhesives are necessary for field membrane attachment over suitable substrates. Refer to the Elevate UltraPly TPO SA or Platinum TPO SA Technical Information Sheets (TIS) for additional information.

- Secure insulation per current Elevate technical specifications to provide a proper substrate for membrane application.
- Install UltraPly TPO SA membranes only when ambient and substrate temperatures are min. 20 °F (-7 °C) and rising. Do not install UltraPly TPO SA membranes below this minimum temperature.
- Unroll and position the membrane over the substrate to achieve the desired alignment and overlaps. Allow the membrane to relax a minimum of 30 minutes before final positioning and adhering.
- Position adjoining sheets in a manner that the seams shed water or run parallel to the flow of water.

Membrane Attachment

Membrane Positioning

Position adjoining sheets allowing for a minimum 3" (76 mm) side lap. UltraPly TPO SA membrane end laps are completed with a butt lap or a primed 2" (51 mm) overlap. A butt lap splice shall have no more than 1" gap between the sheet ends and be stripped in with an 8" (203 mm) reinforced, heat-welded 60 mil TPO membrane cover strip. A primed 2" (51 mm) overlap may be stripped in with a welded cover strip or a section of TPO QuickSeam Flashing set in Single-Ply QuickPrime Primer or Single-Ply LVOC Primer. Single-Ply QuickPrime Primer or Single-Ply LVOC Primer is required wherever UltraPly TPO SA membrane laps onto itself. Refer to Elevate Technical Information Sheets and published details for additional information.

Method of Application – Field Membrane Application

Field Membrane Application:

1. Once the membrane has relaxed in place a minimum of 30 minutes (longer in colder weather), and the seam positions are aligned, carefully fold the sheet back approximately 10' (3.05 m) from one end to expose the release liner without disturbing the original position of the membrane. NOTE: Fold the membrane back from the end, not from the side.
2. Starting from the center split of the exposed release liner, remove the liner at a 45° angle from the center of the sheet back beyond the membrane edge. Be sure to pull enough of the release liner to hold beyond the membrane's edge. Remove at least 5' (1.5 m) of release liner from one end of the sheet and adhere it to the substrate. The removed liner should extend at a 45° angle beyond the edges of the membrane.
3. Lay the folded end back down with the release liner peeled back beyond the edges of the membrane thus adhering it to the substrate. Keeping the membrane flat and secured, and the seam overlap aligned, continue removing the release liner at a 45° angle along the entire length of the sheet: up to 100' (30.5 m). Pulling the release liner at a higher angle can cause the sheet to move and may trap air. The two halves of the release liner should be pulled out at the same time by two people. Keep the release liner as close to the roof surface as possible during removal. **NOTE: Removal of the liner and any handling of the exposed SA adhesive should**

be completed by two persons minimum.

4. To initiate adhesion, use a stiff bristled broom and apply downward pressure across the installed membrane. Broom the membrane from the center of the sheet working toward the edge.
5. Roll the installed membrane with a weighted roller (5 lb per lineal inch) in the same manner, across the width of the sheet to ensure full contact with the substrate. **NOTE: Do not roll membrane in place with a weighted roller if installed over ISOGARD™ HD or Resista™ / ISOGARD CG.**

Method of Application – Roof Edge (Gravel Stop, Gutter Edge) Membrane Application

1. Once the membrane has relaxed in place a minimum of 30 minutes (longer in colder weather), and it is positioned correctly along the roof edge, carefully fold the sheet back approximately 10' (3.05 m) from one end to expose the release liner without disturbing the original position of the membrane. **NOTE: Fold the membrane back from the end, not from the side.**
2. Starting with the outside (roof edge) portion of the release liner, carefully pull it beneath the membrane, toward the field of the roof at a 45° angle to expose the SA adhesive without disturbing the original position of the membrane. Next, pull the inside portion of the release liner beneath the membrane. Maintain a 12" (305 mm) wide minimum separation in the direction of travel between the two sections of liner. Broom the 10' (3.05 m) exposed SA section into position onto the substrate without trapping any air beneath the sheet. **NOTE: Removal of the liner and any handling of the exposed SA adhesive should be completed by two persons minimum.**
3. Keeping the release liner as close to the roof surface as possible and maintaining a 10' (3.05 m) minimum space between the two liner halves, pull both halves of the liner at a 45° angle along the length of the roof edge. Pulling the release liner at a higher angle can cause the sheet to move and may trap air.
4. To initiate adhesion, use a stiff bristled broom and apply downward pressure across the installed membrane. Broom the membrane from the center of the sheet working toward the edge.
6. Roll the installed membrane with a weighted roller (5 lb per lineal inch) across the width of the sheet to ensure full contact with the substrate. **NOTE: Do not roll membrane in place with a weighted roller if installed over ISOGARD™ HD or Resista™ / ISOGARD CG.**

Membrane Seaming

Refer to the UltraPly TPO Application Guide for equipment set up, testing and heat welding of Elevate UltraPly TPO membrane seams.

Ensure proper welds are 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.

Seaming Elevate UltraPly TPO SA Membranes:

1. Position adjoining sheets with selvedge edge to allow for a minimum 3" (76 mm) side overlap.
2. Using an approved robotic heat welding machine or hand-held heat welder and 1½" to 2" (38 mm to 51 mm) wide silicone hand roller, provide a continuous 1½" (38.1 mm) robotic weld or a 2" (51 mm) hand welded seam. Wherever possible, horizontal welds, including flashings, are to be completed with a robotic welder.
   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.
3. UltraPly TPO SA membrane end laps are completed with a butt lap or a primed 2" (51 mm) overlap. A butt lap splice shall have no more than ½" (12.7 mm) gap between the sheet ends and be stripped in with an 8" (203 mm) reinforced, heat-welded 60 mil TPO membrane cover strip. Alternatively, a primed 2" (51 mm) overlap may be stripped in with either a welded cover strip or a section of 9.5" (241.3 mm) TPO QuickSeam Flashing set in Single-Ply QuickPrime Primer or Single-Ply LVOC Primer. Refer to Elevate Technical Information Sheets and published details for additional information.
   NOTE: Single-Ply QuickPrime Primer or Single-Ply LVOC Primer is required in the lap wherever the adhesive backed UltraPly TPO SA membrane laps onto itself.

Install T-Joint Patches

Apply UltraPly TPO T-Joint Covers or UltraPly QuickSeam T-Joint Covers at all reinforced membrane seam intersections or wherever membrane seams extend through angle changes 1:12 or greater.

Seam Inspection and Cut Edge Sealant Application

1. Allow heat welds to cool, then probe all completed welds with a dull cotter pin puller type tool to verify seam integrity, paying special attention to robot starts and stops and hand welded areas. Any welds found to be insufficiently fused are to be repaired daily.
2. Any membrane edges with exposed scrim are to be cleaned with Elevate Splice Wash or LVOC Splice Wash and then treated with UltraPly TPO Clear Cut Edge Sealant or UltraPly TPO Clear LVOC Cut Edge Sealant.
3. When a repair requires a cover material larger than allowed for QuickSeam Flashing the area should be repaired using minimum 60 mil UltraPly Reinforced membrane and hot air welding according to current Elevate Repair Procedures.
4. Once the seams have been inspected and any necessary corrections made, apply UltraPly TPO Clear Cut Edge Sealant to all cut edges with exposed reinforcement scrim.
   - If the seam area has become contaminated with dirt or debris, use a clean rag saturated with Elevate Splice Wash SW-100 to clean the seam step off area. Change rags frequently to avoid depositing previously removed materials.
   - All UltraPly TPO membrane cut edges with exposed reinforcement scrim require an application of UltraPly TPO Clear Cut Edge Sealant by the end of the workday. Failure to seal the cut edge of the UltraPly TPO membrane may allow moisture to wick into the scrim and result in a leak source.

Base Tie-In, Wall, and Curb Flashing

Elevate offers several options for base tie-in and flashing on UltraPly TPO SA membrane installations. Consult the UltraPly TPO Application Guide and standard details for additional information. An acceptable Elevate primer (Single-Ply QuickPrime Primer, Single-Ply LVOC Primer or Elevate Jet Bond Spray Adhesive) is required for vertical application of UltraPly TPO SA membranes and wherever UltraPly TPO SA membrane is lapped onto itself**.**

Base Tie-In and Vertical Flashing Using UltraPly TPO SA membrane and UltraPly TPO QuickSeam Reinforced Perimeter Fastening Strip (QSRPF)

1. Before installing roof membrane, unroll and position the UltraPly TPO QSRPF strip on the substrate with the release paper facing up and the tape portion oriented away from the wall or curb.
2. Anchor the side of the UltraPly TPO QSRPF without tape to the roof deck or to the wall 12" (305 mm) o.c. using Elevate HD Plates and approved Elevate fasteners, per current base tie-in details. Refer to published specifications for product selection and attachment requirements.
3. Position the UltraPly TPO SA field panel with adequate seam overlap, allowing enough membrane to extend up the vertical surface. Fold the membrane back on itself to expose the wall or curb and QSRPF and apply primer to the vertical substrate and rear half of the QSRPF. Do not prime the splice between UltraPly TPO SA membrane and QSRPF tape.
4. Proceed with installation of UltraPly TPO SA membrane as described in the field membrane application section of this specification. Remove the release liner from the UltraPly TPO QSRPF before mating the membrane to

the tape side of the QSRPF. Tuck the membrane carefully into the angle change then continue to roll the membrane up the wall. Broom the membrane into place with a stiff push broom then roll the vertical flashing to ensure permanent adhesion.

5. Roll the membrane over the QSRPF with a 1½" to 2" (38 mm to 51 mm) wide silicone roller or Elevate QuickRoller, first along the backside of the QSRPF near the angle change, then over the tape at a right angle toward the outer tape edge, then along the length of the tape.
6. Complete vertical seams using a hand-held heat welder and 1½" to 2" (38 mm to 51 mm) wide silicone hand roller and install UltraPly TPO T-Joint Covers wherever vertical splices extend through angle changes.
7. Follow procedure noted previously for seam inspection and apply UltraPly TPO Clear Cut Edge Sealant at all membrane edges with exposed reinforcement.

Clean Up

If required by the specifier to ensure the aesthetics of the Elevate UltraPly 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. Elevate SW-100 Splice Wash 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 Elevate thermoplastic 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.**

This guide is meant to highlight Elevate products and specifications provided by Amrize Building Envelope LLC and is subject to change without notice. Amrize takes responsibility for furnishing quality materials which meet published Elevate product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Amrize nor its representatives practice architecture. Amrize Building Envelope LLC offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Amrize accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Amrize representative is authorized to vary this disclaimer.