

# Technical Information Sheet



## ULTRAPLY™ TPO XR FLEECE-BACKED MEMBRANE

| Item Description                     | Item Number |
|--------------------------------------|-------------|
| <b>UltraPly TPO XR 100 (45 mil)</b>  |             |
| ▪ White Membrane                     | W56TXRM3099 |
| ▪ Tan HR Membrane                    | W56TXRLT099 |
| ▪ Gray Membrane                      | W56TXRGM099 |
| <b>UltraPly TPO XR 115 (60 mil)</b>  |             |
| ▪ White Membrane                     | W56TXR3M699 |
| ▪ Tan HR Membrane                    | W56TXRLM699 |
| ▪ Gray Membrane                      | W56TXRGM699 |
| <i>Meets or exceeds ASTM D 6878.</i> |             |

### DESCRIPTION

Elevate UltraPly TPO XR Membrane is a flexible Thermoplastic Polyolefin (TPO) roofing membrane that is produced with polyester weft-inserted reinforcement and an 8-ounce polyester fleece backing. UltraPly TPO XR Membrane meets or exceeds all requirements for ASTM D 6878 Specification. This heat weldable UltraPly TPO membrane is available in 45 mil (1.14 mm) and 60 mil (1.52 mm) thicknesses. This membrane is ideal for a variety of new or re-roofing applications.

### METHOD OF APPLICATION

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose, or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All rough surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than ¼" (6.3 mm) wide shall be properly filled with an acceptable fill material.
4. UltraPly TPO XR membrane may be fully adhered using I.S.O. Spray™ R Insulation Adhesive, Jet Bond Spray Adhesive or hot asphalt; or adhered in adhesive beads using XR Stick™ Adhesive; or adhered in adhesive beads or spatter pattern using Twin Jet. UltraPly TPO XR Membrane can also be mechanically attached. UltraPly TPO XR Membrane may also be adhered using SEBS Mopping Asphalt (TIS 811) to an approved substrate or modified bitumen sheet.

### STORAGE

- Store away from sources of punctures and physical damage.
- Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.
- Store away from ignition sources as membrane will burn when exposed to open flame.

### PRECAUTIONS




- Review Safety Data Sheets (SDS) for safety information.
- Exercise caution when lifting, moving, transporting, storing, or handling membrane rolls to avoid sources of punctures and possible physical damage.
- Contact a Regional Technical Coordinator at 1-800-428-4511 for specific recommendations regarding chemical or waste product compatibility with Elevate UltraPly TPO XR Membrane.

## LEED® INFORMATION

Post-Consumer Recycled Content: 0%  
 Post Industrial Recycled Content: 15%  
 Manufacturing Location: Tuscumbia, AL  
 NOTE: LEED® is a registered trademark of the U.S. Green Building Council



| <b>TYPICAL PROPERTIES (Meets or exceeds ASTM D 6878 Specification)</b>  |                               |  |                                    |                                    |
|---|-------------------------------|--|------------------------------------|------------------------------------|
| Properties  | Test Method                   | Performance Minimum  | Typical Performance XR 100: 45 mil | Typical Performance XR 115: 60 mil |
| Overall Thickness (Thickness Above Fleece)  | D 751                         | 0.039" (1.0 mm)  | 0.045" (1.14 mm) ± 10%             | 0.060" (1.52 mm) ± 10%             |
| Coating Over Scrim  | D 7635                        | 0.015" (0.38 mm)   | 0.017" (0.43 mm)                   | 0.021" (0.53 mm)                   |
| Breaking Strength   | D 751, Grab Method            | 220 lbf (979 N)  | 340 lbf (1,512 N)                  | 390 lbf (1,735 N)                  |
| Elongation of Reinforcement Break   | D 751, Grab Method            | 15%  | 25%                                | 25%                                |
| Tearing Strength  | D 751                         | 55 lbf (245 N)   | 120 lbf (534 N)                    | 120 lbf (534 N)                    |
| Brittleness Point   | D 2137                        | -40 °F (-40 °C)  | Pass                               | Pass                               |
| Ozone Resistance, No Cracks   | D 1149                        | Pass (No Cracks)   | Pass                               | Pass                               |
| Properties After Heat Aging (Retained Values) ASTM D 573-5376 h (224 days or 32 weeks) at 240 °F (116 °C)   |                               |  |                                    |                                    |
| Breaking Strength   | D 751, Grab Method            | 90% Minimum  | > 90%                              | > 90%                              |
| Elongation at Break   | D 751, Grab Method            | 90% minimum  | > 90%                              | > 90%                              |
| Tearing Strength  | D 751                         | 60% minimum  | > 60%                              | > 60%                              |
| Weight of Change  | ---                           | ± 1% maximum   | < 1%                               | < 1%                               |
| Linear Dimension Change   | D 1204, 6 h at 158 °F (70 °C) | ± 1% maximum   | < 1%                               | < 1%                               |
| Water Absorption  | D 471                         | ± 3% Maximum   | < 3%                               | < 3%                               |
| Weather Resistance*   | G 155                         | 10,800 kJ/m <sup>2</sup> Minimum                                     | > 60,000 kJ/m <sup>2</sup>         | > 60,000 kJ/m <sup>2</sup>         |
| *176 °F (80 °C) Black Panel, no cracking, crazing when wrapped around a 3" (76.2 mm) mandrel and inspected at 7X magnification  |                               |  |                                    |                                    |
| Puncture Resistance   | FTM 101C, Method 2031         | ---  | ---                                | ---                                |
| Dynamic Puncture Resistance MD  | D 5635                        | ---  | Pass (60 J)                        | Pass (65 J)                        |
| Dynamic Puncture Resistance CD  | D 5635                        | ---  | Pass (55 J)                        | Pass (65 J)                        |
| Static Puncture Resistance  | D 5602                        | ---  | Pass (25 kg)                       | Pass (25 kg)                       |
| Air Permeance (Material)  | E 2178*                       | <0.004 ft <sup>3</sup> /ft <sup>2</sup> (0.02 L/(s·m <sup>2</sup> )) | Pass                               | Pass                               |
| 1. The ASTM 2178 values listed above are for the air permeance of the UltraPly TPO Membrane component only.<br>2. When system design includes an air barrier, please consult a Regional Technical Coordinator for additional roof system securement enhancements.<br>3. Consult the Designer / Architect, Code Agency, or Authority Having Jurisdiction (AHJ) for requirements regarding the selection and use of an appropriate air barrier material, and its installation into the building envelope. |                               |  |                                    |                                    |

| Color Options   |   |   |
|---|---|---|
| White   | Gray  | Tan   |
|  |  |  |

| RADIATIVE PROPERTIES   |                 |                 |                 |
|--|-----------------|-----------------|-----------------|
| Cool Roof Rating Council (CRRC):<br>Values: Initial / 3 year | White           | Light Tan (HR)  | Gray            |
| Solar Reflectance  | 0.80 / 0.70     | 0.73 / 0.66     | 0.34 / 0.34     |
| Thermal Emittance  | 0.78 / 0.81     | 0.90 / 0.91     | 0.89 / 0.88     |
| Solar Reflectance Index (SRI)                                | 97 / 84         | 90 / 81         | 37 / 36         |
| Rated Product ID   | 0008            | 0091            | 0032            |
| Licensed Manufacturer ID                                     | 0608            | 0608            | 0608            |
| Classification   | Production Line | Production Line | Production Line |
| LEED®  | White           | Light Tan (HR)  | Gray            |
| Initial Solar Reflectance Index (SRI)                        | Pass (98)       | ---             | ---             |
| 3-year Aged Solar Reflectance Index (SRI)                    | Pass (83)       | ---             | ---             |

| PRODUCT SIZES  |                  |  |                  |
|--|------------------|--|------------------|
| Membrane Thickness: TPO XR 100 – 0.045" (1.14 mm)<br>Membrane Weight: 0.27 lb/ft <sup>2</sup> (1.3 kg/m <sup>2</sup> ) |                  | Membrane Thickness: TPO XR 115 – 0.060" (1.52 mm)<br>Membrane Weight: 0.32 lb/ft <sup>2</sup> (1.6 kg/m <sup>2</sup> ) |                  |
| Available Sizes  | Available Colors | Available Sizes  | Available Colors |
| 10' x 100' (3.0 m x 30.5 m)  | White, Tan, Gray | 10' x 100' (3.0 m x 30.5 m)  | White, Tan, Gray |

Please contact Elevate Technical Services at 800-428-4511 for further information.

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