



Sample Assembly Shown

1. Firestone UltraPly™ TPO Membrane
2. Mechanical Attachment Method
3. Mechanically Attached or Adhered Cover Board (Optional)
4. Mechanically Attached or Adhered Insulation
5. Wood Deck

Consult Firestone Technical Specifications, Guides and Details at [www.firestonebpco.com](http://www.firestonebpco.com)

**Slope Requirement**

Positive slope required for warranty.<sup>5</sup>

**Construction Type**

New construction, complete tear-off, or recover with any wet or damaged materials removed prior to installation.

**Building Height Limitation**

Firestone UltraPly™ TPO Mechanically Attached Systems are limited to buildings 120' (36.6 m) or less.

**Use of Air Barrier**

An air barrier is required for projects with large wall openings greater than 10% of the total wall area. If air barrier is used, use the fully adhered insulation attachment rates.

**Base Tie-Ins**

Must be attached to substrates which provide a minimum of 200 lbf (1 kN) in any direction.

**Increased Wind Speed and Codes**

Any wind speed coverage exceeding 55 mph (88 km/h) or projects with codes requirements must be reviewed by a Firestone Roof Systems Advisor.

**Deck Requirement**

- Minimum 1/2" Plywood
- Minimum 7/16" OSB

**Fastener Type**

- Firestone All Purpose Fastener
- Firestone Heavy Duty Fastener
- Firestone HailGard™ Fastener (with HailGard Composite Board or OSB only)

**Insulation Adhesive\***

- Firestone I.S.O. Twin Pack™ Insulation Adhesive
- Firestone I.S.O. Spray™ S Insulation Adhesive
- Firestone I.S.O. Fix™ II Insulation Adhesive
- Firestone I.S.O. Stick™ Insulation Adhesive

\*Note: Max. 4' x 4' boards must be used when attaching insulation with adhesives.

**Adhesive Attachment**

- Bead Spacing: F: 12", P: 12", C: 12"
- Full Application (I.S.O. Spray S Insulation Adhesive)

**Membrane Requirement**

- UltraPly TPO, Any Thickness
- ReflexEON™ TPO, Any Thickness

**Seaming Requirement**

Firestone 1.5" Single Weld System (use robot welder). Joint covers are required at all joints and at angle changes 1:12 or greater.

**Membrane Attachment**

Max. 15 year Warranty:

- Maximum 12' Row Spacing, Fasteners Spaced Maximum 12" o.c.

20 Year Warranty: UltraPly TPO, 0.045":

- Maximum 12' Row Spacing, Fasteners Spaced Maximum 6" o.c.

20 Year Warranty: UltraPly TPO, Min 0.060":

- Maximum 12' Row Spacing, Fasteners Spaced Maximum 12" o.c.

**Edge Metal System**

- Firestone EdgeGard™ System
- Firestone AnchorGard™ System
- Firestone Coping System
- Firestone Termination Bar
- Firestone Aluminum Drain Bar

**Insulation Fastener and Insulation Plate Attachment Rates – Field Rates for Standard 55 mph Wind Speed**

| Insulation (Top Layer)                                    | 4' x 8' | Coverboard (Optional)  | 4' x 8' |
|---|---------|--|---------|
| 1.0" to 1.4" Firestone ISO 95+™ GL or RESISTA™ Insulation | 5       | 1/2" or 1.0" FiberTop Wood Fiber Board (Max. 15 Year Warranty) | 5       |
| 1.5" to 1.9" Firestone ISO 95+ GL or RESISTA Insulation   | 5       | Firestone ISOGARD™ HD Cover Board                              | 5       |
| 2.0" to 4.0" Firestone ISO 95+ GL or RESISTA Insulation   | 5       | 1/4" SECUROCK® Glass-Mat or DensDeck® / (Prime)                | 5 5/(5) |
| Firestone HailGard™ Composite Board                       | 5       | 1/2" SECUROCK Glass-Mat or DensDeck / (Prime)                  | 5 5/(5) |
| Firestone ISOGARD™ HD Composite Board                     | 5       | 5/8" SECUROCK Glass-Mat or DensDeck / (Prime)                  | 5 5/(5) |

**Detail Description**

|                                   |  |
|-----------------------------------|--|
| <b>Wall Terminations:</b>         | Firestone Termination Bar with AP Sealant applied along the caulk lip. Surface mounted or inserted counter flashing may also be used in accordance with current Firestone details.   |
| <b>Curb &amp; Wall Flashings:</b> | Curbs, walls, and expansion joints must be anchored with appropriate base tie-in detail, either using seam plates and fasteners or using UltraPly QuickSeam Reinforced Perimeter Fastening (RPF) Strip and Batten Strip or 2" Metal Seam Plates. Curbs and walls must be flashed using minimum 0.045" UltraPly TPO Membrane or UltraPly TPO 18" Curb Flashing. Flashings may be sealed with welded details or QuickSeam products when acceptable. Details may include UltraPly TPO Coated Metal. |
| <b>Corners:</b>                   | UltraPly TPO Inside/Outside Corners or UltraPly QuickSeam Corner Flashing.   |
| <b>Roof Edges/Parapets:</b>       | Firestone AnchorGard™ or EdgeGard™ Fascia or Drain Bar systems. ANSI/SPRI ES-1 rated edge metal may also be used / Firestone Coping System or UltraPly TPO Coated Metal  |
| <b>Penetrations:</b>              | Flash with UltraPly QuickSeam or UltraPly Pipe Flashing (weldable), UltraPly TPO Penetration Pocket, or field fabricate with UltraPly TPO Unsupported Flashing.  |

**Notes:**

1. Only Firestone brand products are covered in a Red Shield warranty.
2. Refer to the Firestone Technical Database at [www.firestonebpco.com](http://www.firestonebpco.com) for additional information regarding UltraPly TPO Roof Systems.
3. Refer to the Firestone RoofGenuity™ tool to create roof assemblies with high-performance Firestone products at [www.RoofGenuity.com](http://www.RoofGenuity.com).
4. DensDeck is a registered trademark of Georgia-Pacific Gypsum LLC.
5. It is the installing contractor's responsibility to follow applicable building codes.
6. SECUROCK is a registered trademark of USG Corporation.