



1. Firestone UltraPly TPO XR Membrane
2. Adhered with Adhesive
3. Mechanically Attached or Adhered Cover Board (Optional)
4. Mechanically Attached or Adhered Insulation
5. Lightweight Concrete Deck

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

**Slope Requirement**

Positive slope required for warranty.

**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 Adhered Systems are limited to buildings 250' (76.2 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.

**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 code requirements must be reviewed by a Firestone Technical Services Advisor.

**Deck Requirement**

- 2" Lightweight Concrete over 22 Gauge Steel Pan
- 2" Lightweight Concrete over Structural Concrete
- 2" Lightweight Concrete with Base Sheet Attachment

**Fastener Type**

- Firestone Heavy Duty Fastener (Into Steel or Structural Concrete Only)
- Firestone Concrete Drive Fastener (Into Structural Concrete Only)
- Firestone 1.7" LWC Base Ply Fastener (Base Sheet Attachment Only)
- Firestone 2-Piece Impact Nail Fastener (Base Sheet Attachment Only)

**Insulation Adhesive\***

- Firestone I.S.O. Twin Pack™ Insulation Adhesive<sup>6</sup>
- Firestone I.S.O. Stick™ / Twin Jet Insulation Adhesive<sup>6</sup>

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

**Adhesive Attachment**

**Max. 15 Year Warranty:**

- Bead Spacing: F: 12", P: 12", C: 12"

**20 Year Warranty:**

- Bead Spacing: F: 12", P: 6", C: 4"

**Membrane Requirement**

**Max. 15 Year Warranty:**

- UltraPly TPO XR, Any Thickness

**20 Year Warranty:**

- UltraPly TPO XR 115 (60 mil)

**Seaming Requirement**

Firestone Single Weld System (use robot welder). End laps require 8" UltraPly TPO Cover Strip welded over the end lap. Joint covers are required at all T joints (.060 membrane) and at angle changes 1:12 or greater (any thickness).

**Firestone Membrane Adhesive**

- XR Bonding Adhesive\*\*, Full Coverage
- XR Stick Bonding Adhesive, Bead Attach
- I.S.O. Spray R, Full Coverage or Bead Attach
- Twin Jet, Bead or Spatter Attach
- Asphalt (III)\*\* (Max 15 Year), Full Coverage
- Asphalt (IV or SEBS)\*\*, Full Coverage

**Edge Metal System**

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

**Insulation Mechanical Attachment Rates for Standard 55 mph Wind Speed**

**Insulation (Top Layer) and Optional Coverboard 4'X8'**

1.0" to 1.4" Firestone ISOGARD GL / ISO 95+ GL or ISOGARD GC / Resista Insulation	16	1/4" SECUROCK® Gypsum Fiber Board	10
1.5" to 1.9" Firestone ISOGARD GL / ISO 95+ GL or ISOGARD GC / Resista Insulation	12	1/2" SECUROCK Gypsum Fiber Board	8
2.0" to 4.0" Firestone ISOGARD GL / ISO 95+ GL or ISOGARD GC / Resista Insulation	8	5/8" SECUROCK Gypsum Fiber Board	8
1.5" to 1.9" / 2.0" to 4.0" Firestone ISOGARD HG / HailGard Composite	12 / 8	1/4" DensDeck® Roof Board / DensDeck Prime Roof Board	16 / 12
Firestone ISOGARD HD Composite Board	8	1/2" DensDeck Roof Board / DensDeck Prime Roof Board	12 / 10
Firestone ISOGARD HD Cover Board	12	5/8" DensDeck Roof Board / DensDeck Prime Roof Board	8
1/2" Structodek® High Density Wood Fiber Board (max. 15 year warranty)			16

**Detail Description**

<b>Wall Terminations:</b>	Firestone Termination Bar with optional surface mounted or reglet inserted counterflashing 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 using foam adhesive (XR Stick, Twin Jet or I.S.O. Spray R) with UltraPly TPO XR membrane or HD Seam Plates and HD Fasteners with TPO membrane. Curbs and walls must be flashed using minimum 0.045" UltraPly TPO Membrane, UltraPly TPO Flex Adhered or UltraPly TPO 18" Curb Flashing. Flashings may be sealed with welded details or QuickSeam products (see UltraBlend details) where acceptable, and may include UltraPly TPO Coated Metal.
<b>Corners:</b>	UltraPly TPO Inside/Outside Corners or QuickSeam products (see UltraBlend details).
<b>Roof Edges/Parapets:</b>	Firestone AnchorGard or EdgeGard Fascia, Drain Bar systems, Firestone Coping System, UNA-EDGE System or UltraPly TPO Coated Metal.
<b>Penetrations:</b>	Flash with weldable UltraPly Pipe Flashing or UltraPly TPO Penetration Pocket, field fabricate with UltraPly TPO Unsupported Flashing, use QuickSeam products (see UltraBlend details) or use liquid flashing details.

**Notes:**

1. Only Firestone brand products are covered in a Red Shield warranty.
2. Refer to the Firestone Technical Database at [www.firestonebpc.com](http://www.firestonebpc.com) for additional information regarding UltraPly TPO Roof Systems.
3. DensDeck is a registered trademark of Georgia-Pacific Gypsum LLC.
4. It is the installing contractor's responsibility to follow applicable building codes.
5. SECUROCK is a registered trademark of USG Corporation.
6. Structodek is a registered trademark of Blue Ridge Fiberboard, Inc.

\*\* Do not apply XR Bonding Adhesive directly to ISOGARD GL / ISO 95+ GL, ISOGARD CG / RESISTA or ISOGARD HD.