

TECHNICAL INFORMATION SHEET

XR Stick™

ITEM NUMBER:

Boxes:

W56TPO3401 – Part 1 - 5 Gallon bag in the box AND

W56TPO3402 – Part 2 - 5 Gallon bag in the box

Cartridge:

W56TPO3400 - 1500 ml Cartridge Kit (750 ml Part 1 and 750 ml Part 2)

TIS # 825



Description:

Firestone XR Stick is a two-component, low-rise polyurethane adhesive designed to attach UltraPly TPO XR, fleece backed roofing membrane to a variety of acceptable substrates as allowed by Firestone specifications. XR Stick (cartridges) can be dispensed using various Firestone approved hand or multi bead electric dispensing units. The dispensing units extrude Part A and Part B simultaneously through a static mixer which results in a properly mixed bead of adhesive to be applied to the receiving substrate. XR Stick (box) is specifically designed to be dispensed using the PaceCart 2™ dispenser. The PaceCart 2 dispenser pumps the XR Stick Parts 1 and 2 simultaneously to a static mixer, which allows a properly mixed bead of adhesive to be applied to the receiving substrate. **Note:** PaceCart 2 is a registered trademark of OMG, INC.

Method of Application:

1. Install only as much roof membrane anchored with XR Stick as can be covered and made watertight during that working day.
2. The substrate must be clean, smooth, dry, and free of sharp edges, loose and foreign materials, oil, grease, and other contaminants.
3. Proper equipment must be used to install XR Stick Membrane Adhesive. Install XR Stick only when ambient conditions, and bonding substrates and membranes, exceed 40 °F (4 °C) and are rising.
4. To mix and dispense XR Stick with the Pace Cart 2, properly install the XR Stick Parts 1 and 2 onto the PaceCart 2 and apply the product as per the equipment manufacturer's instructions.
5. Unroll the UltraPly TPO XR membrane sheet and position in place. Fold the sheet in half width wise.
6. The adhesive should be properly mixed in a 1:1 ratio through the attached static mix tip. When properly mixed, there should be no marbling in the adhesive.
7. Apply the adhesive on the substrate in beads spaced at a maximum of 12" (300 mm) on center with a ¾" - 1" (19.0 mm - 25.4 mm) wide bead.
8. It is important to allow the adhesive to rise in height. Before a skim coat develops (See **Reaction Time** section) on the adhesive, mate the TPO XR membrane to the substrate.
9. Immediately after setting the membrane in the XR Stick Adhesive, it is required to thoroughly apply continuous pressure to the bonded membrane using a roller (not to exceed 150 lbs). It is important that freshly installed membrane remains in contact with the substrate and XR Stick until the adhesive sets to ensure proper adhesion.
10. To store previously opened XR Stick containers for an extended period of time, turn off the pump on the PaceCart 2 and relieve pressure by closing the valves located. Remove and discard the static mixing tip. Apply grease to the PaceCart 2's manifold. Keep Part 1 and Part 2 containers of XR Stick connected to the PaceCart 2.

Storage:

- Store in original unopened containers at temperatures between 60 °F (15.6 °C) and 80 °F (26.7 °C) prior to use.
- Do not store in direct sunlight.
- Do not allow to freeze.
- Ship and store product with handle side up and keep caps of nozzle closed tightly. Do not expose to moisture.
- Stored in original unopened containers indoors away from direct sunlight between 60 °F (15.6 °C) and 80 °F (26.7 °C), shelf life is 18 months.

Precautions:

- Review applicable Material Safety Data Sheet prior to use.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with XR Stick.
- At the start and throughout each workday, test samples made with XR Stick should be created to verify that proper mixing, set-up and overall adhesion of membrane to substrate is being achieved before proceeding.
- Avoid contact with eyes. Wear safety glasses with side shields.
- Avoid breathing of vapors. A Self-Contained Breathing Apparatus (SCBA) or Respirator should be used in areas of limited ventilation (i.e. confined space).
- Avoid contact with skin. Wear gloves when dispensing. Wash hands thoroughly after handling.
- Use caution when removing caps from cartons.
- Do not burn empty kit containers. Dispose in accordance with local, federal, and state regulations.

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- For use with Firestone's UltraPly TPO XR membrane only.

Compliance:

Post Consumer Recycled Content: 0%
 Pre Consumer Recycled Content: 0%
 Manufacturing Location: Rockford, MN



Packaging:

Packaging Information:

Boxes:

Part 1 and Part 2 are each packaged in separate five gallon (18.9 L) box containers.
 Each set of Part 1 and Part 2 boxes
 18 sets per pallet

Cartridges:

One 1500 ml Cartridge Kit (750 ml Part 1 and 750 ml Part 2)

Carton:

Each carton of cartridges contains four-1500 ml Cartridge Kits and includes 4 static mixing tips

Reaction Time:

When applying XR Stick, the TPO XR membrane must be placed into the adhesive while it is still wet and tacky (before it reaches tack free state). The membrane may be placed into adhesive shortly after it has reached its maximum rise, typically after 2-3 minutes.

SUBSTRATE TEMPERATURE	TACK FREE* STATE (minutes)	SET UP (minutes)
40-90 °F (4 - 32 °C)	5	8

* **Definition- Tack Free State:** The point at which no adhesive will transfer from the surface to finger upon touching.

Coverage:

These typical coverage rates are applicable when the XR Stick is properly mixed with 1:1 ratio and applied in the appropriate bead spacing in a serpentine pattern at a bead width of 3/4" to 1" (19 mm to 25.4 mm). Coverage rates will vary if the bead spacing is increased. Coverage rate may differ due to substrate type. (On approved, smooth, non porous surface with a 3/4 to 1" (19-25 mm) wide bead)

Coverage , ft ² /gal (m ² /L)	Bead Spacing
170-200 (4.1-4.8)	12" o.c.
90-120 (2.2-2.9)	6" o.c.
60-90 (1.4-2.2)	4" o.c.

Physical Properties:

Part A

Part B

<i>Composition:</i>	Polymeric MDI		Polyurethane Component
<i>Max Ratio (Part A:Part B):</i>		1:1	
<i>Specific Gravity:</i>	1.23		1.02
<i>Viscosity:</i>	400-600 cps		250-400 cps
<i>V.O.C. Content:</i>		≤ 13 grams/Liter	

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Perimeter and Corner Enhancements (3/4" to 1" (19-25mm) wide bead):

Building Height	Bead Spacing (Perimeter)	Bead Spacing (Corner)	Bead Spacing (Field)
0-25'	6" o.c. – 4' perimeter	4" o.c.	12" o.c.
25-50'	6" o.c – 8' perimeter	4" o.c.	12" o.c.
50-75'	6" o.c – 12' perimeter	4" o.c.	12" o.c.
75-100'	6" o.c – 16' perimeter	4" o.c.	12" o.c.
Greater than 100'	Please Contact your Firestone Technical Coordinator at 1-800-428-4511 for further information.		

Acceptable Substrates:

Structural Concrete (New)
 Structural Concrete (Existing)
 Gypsum Decks
 Cementitious Woodfiber
 Plywood and OSB
 Lightweight Concrete

Existing Asphalt and Modified
 Bitumen Roofs (Mineral or
 Smooth Surfaced)
 SBS Base Sheets

Insulation
 ISO95+ GL, RESISTA, FiberTop
 Woodfiber, Dens-Deck Products,

Notes:

New poured decks must be completely dry prior to the application of XR Stick.

Acceptable Lightweight concrete substrates include cellular or air-entrained concrete. Lightweight concrete substrates with aggregate (such as perlite or vermiculite) are not acceptable. Positive adhesive test required.

Any residual asphalt must be cleaned and scraped as smooth as possible.

NOT ACCEPTABLE:

Notes:

Existing Single Ply roofs, Coal Tar Pitch, Fiberglass insulation, Perlite insulation, EPS, XPS

Existing substrates containing residual asphalt must be cleaned and scraped smooth as possible. The substrate shall be smooth, flat, clean, dry, free of sharp fins, or foreign materials All perimeters, deck seams and all penetrations must be sealed to prevent air infiltration through the deck. Firestone recommends an expanding foam or similar product be used.

Dens-Deck is a registered Trademark of Georgia-Pacific.

Please Contact your Firestone Technical Coordinator at 1-800-428-4511 for further information.

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