

TECHNICAL BULLETIN

To: FIRESTONE RED SHIELD CONTRACTORS
 FIRESTONE DISTRIBUTORS
 FIRESTONE SALES REPRESENTATIVES

August 24, 2016

RE: FIRESTONE RUBBERGARD™ EPDM SA AND ULTRAPLY™ TPO SA WITH SECURE BOND™ TECHNOLOGY APPLICATION UPDATE

Dear Valued Firestone Partner:

The intent of this bulletin is to provide updated application method(s), guidelines and reminders for the installation of roofing systems using Firestone's UltraPly TPO SA and RubberGard EPDM SA membranes with Secure Bond™ Technology.

- A. **Prior to installation of the RubberGard EPDM SA and UltraPly TPO SA membrane:** Unroll and position the membrane over the substrate to achieve the desired alignment and overlaps, and allow it to relax on site for a minimum of 30 minutes, longer in colder weather.
- B. **Substrates:** 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.
- C. **Insulation:** Insulation must be fastened per current Firestone technical specifications to provide a proper substrate.

ACCEPTABLE SUBSTRATES		
Substrates	Primer Required	Special Application Considerations / Notes
Structural Concrete	No	Must be clean, dry and properly cured prior to application
Lightweight Concrete	No	Use on clean, dry and properly cured cellular lightweight concrete only; not acceptable with lightweight aggregate concrete
Poly ISO 95+ G/L	No	
DensDeck*	No	
DensDeck Prime	No	
Securock**	No	
Plywood	No	Check local code for acceptance of direct application
OSB Board	No	Check local code for acceptance of direct application
CMU/Masonry Block	No	Clean, dry substrates only. Firestone recommends testing a small area for application to determine if a primer is required.
RESISTA™	No	
ISOGARD™ HD	No	

* DensDeck is a registered trademark of the G-P Gypsum Corp.

** Securock is a registered trademark of the USG Corp.

NON-ACCEPTABLE SUBSTRATES	
FiberTop™ Wood Fiber Board	Coal Tar Pitch
Structodek®+ HD Fiber Board	Built Up Roofs
Perlite	Direct to Steel Deck
Rock Wool (mineral wool) Insulation	5/8" Type X Gypsum
Expanded/Extruded Polystyrene	DexCell***
Fiberglass	Existing Asphalt and Granular Surfaced Modified Bitumen Roofs
Cementitious Wood Fiber/Tectum	Existing Single Ply Roofs

*** DexCell is a registered trademark of the National Gypsum Company

*Structodek is a registered trademark of Blue Ridge Fiberboard, Inc.

D. Install: Only install RubberGard EPDM SA and UltraPly TPO SA membrane when the ambient, substrate and membrane temperatures are within the range of 20 to 120 °F (-7 to 49 °C).

E. Updated Field Membrane Applications: For an update to Membrane Application for either EPDM SA or TPO SA membrane, follow the steps outlined below: *Refer to links for YouTube videos and Rooftop Tips in Section M&N.*

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 back the leading edge of the membrane at one end to expose the release liner without disturbing the original position of the membrane.
2. Starting from the center split of the exposed release liner, remove the liner on both sides of the split at a 45° angle back beyond the membrane edge, making sure to have pulled enough of the release liner to hold below the membrane. Remove approximately 5' (minimum) of release liner from one end of the sheet and adhere it to the substrate. The release liner removed should be enough to extend out beyond the edges of the membrane. ***Do not fold the length of the roll in half.***
3. Keeping the membrane flat and secure, and seam overlap aligned, continue removing the release liner at a 45° angle along the length of the entire sheet (up to 100'). 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 done by two people minimum.**
4. To initiate adhesion, use a stiff bristled broom and apply downward pressure to broom in the installed membrane. Broom the installed membrane across the width of the sheet working toward the roof edge. Repeat the process for the other half of the membrane by starting from the center and broom towards the field side of the roof.
5. Roll the installed membrane with a weighted roller (5 lb per lineal inch) across the width of the membrane sheet to ensure full contact with the substrate. **Do not roll membrane in place with a weighted roller if installed over ISOGARD HD or RESISTA.**

F. Updated Roof Edge (Gravel Stop, Gutter Edge) Application:

1. Align the membrane's position along the roof edge and allow the membrane to relax in place a minimum of 30 minutes (longer in colder weather).
2. To prepare the membrane for installation at the roof edge, carefully fold one end of the membrane sheet back approximately 10' (minimum). Fold the membrane from one end and do not fold along the length of the roll.
3. Starting with the outside (roof edge) liner, carefully pull it underneath the membrane, back towards 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 liner, making sure to maintain a 12" wide (minimum) separation between the two liner halves. Back-roll the exposed SA section (minimum 10') onto the prepared substrate and set in place without trapping any air or allowing wrinkles beneath the sheet. **Note: Removal of the liner and any handling of the exposed SA adhesive should be done by two people minimum.**
4. Keeping the release liner as close to the roof surface as possible and maintaining a 10' (minimum) space between the two liner halves, pull both the leading outside (roof edge) liner and then the following inside (field) liner sections 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.
5. To initiate adhesion, use a stiff bristled broom and apply downward pressure to broom in the installed membrane. Broom the installed membrane across the width of the sheet working toward the roof edge. Repeat the process for the other half of the membrane by starting from the center and broom towards the field side of the roof.
6. Roll the installed membrane with a weighted roller (5 lb per lineal inch) across the width of the membrane sheet to ensure full contact with the substrate. **Do not roll membrane in place with a weighted roller if installed over ISOGARD HD or RESISTA.**

G. Membrane Seaming: After the membrane has been secured into place, complete the membrane seams, making sure the seam overlaps with the next sheet a minimum width of 3" (for EPDM SA) or 2" (for TPO SA). Ensure that the seam is clean of all dirt and contaminants and that no moisture is present on the seam surfaces. Position a new membrane panel in place and repeat the steps outlined above.

H. End Lap Treatment Options: Store all primers, adhesives, sealants, tapes, etc. in their original unopened containers at temperatures between 60 °F (15.6 °C) and 80 °F (26.7 °C), prior to installation in cold weather.

1. For EPDM SA - butt seam option: At all end laps (without selvage edge), position membrane sheets 0.5" (max.) apart. Apply primer (either QuickPrime™ Plus; QuickPrime Plus LVOC; Single Ply QuickPrime Primer or Single Ply LVOC Primer) and strip in the End Lap with 6" QuickSeam Batten Cover or 18" QuickSeam SA Flashing
2. For TPO SA – butt seam option : At all end laps, position membrane sheets 0.5" (max.) apart. Strip in the End Lap with UltraPly TPO 8" Reinforced Cover Strip (heat welded - no primer required), or using 9.5" UltraPly TPO QuickSeam Flashing (Single Ply QuickPrime Primer or Single Ply LVOC Primer required.)
3. For EPDM SA & TPO SA – SA adhesive overlap option: Prime overlap area on the top surface of the lower EPDM SA or TPO SA membrane. Overlap membrane onto primed area (3" minimum). Prime overlap, and strip in with; For EPDM SA use 6" QuickSeam Batten Cover or 18" QuickSeam SA Flashing; For TPO SA, use UltraPly TPO 8" Reinforced Cover Strip (heat welded - no primer required); 9.5" UltraPly TPO QuickSeam Flashing (primer required); 5.5" TPO QuickSeam Flashing (primer required); or EcoWhite™ 6" QuickSeam Flashing (primer required).
4. Apply seam edge treatment at all lap edges and/or cut edges of the 6" QuickSeam Batten Cover , 18" QuickSeam SA Flashing, 9.5" UltraPly TPO QuickSeam Flashing, 5.5" TPO QuickSeam Flashing; or EcoWhite™ 6" QuickSeam Flashing, where required.

I. SA Adhesive Overlap as Flashing (without selvage edge): When used as flashing at a wall or curb, an acceptable primer is required on the field membrane at the overlap seam. Apply primer on the top surface of the lower EPDM SA or TPO SA membrane wherever the EPDM SA and TPO SA adhesive is used to create an overlapping seam. This overlapping seam must be stripped in using an acceptable and approved primer and cover tape.

I. Acceptable Primers: To allow for the application of a QuickSeam™ cover strip, acceptable primers include:

1. For EPDM SA only: QuickPrime™ Plus or QuickPrime Plus LVOC.
2. For Both EPDM SA and TPO SA: Single Ply QuickPrime Primer or Single Ply LVOC Primer.

K. Cover Tape or Strip-in Options: Cover the "non-selvage" overlap of the flashing and primed field membrane with:

1. For EPDM SA – 6" QuickSeam Batten Cover or 18" QuickSeam SA Flashing
2. For TPO SA – use UltraPly TPO 8" Reinforced Cover Strip (heat welded - no primer required); 9.5" UltraPly TPO QuickSeam Flashing (primer required); 5.5" TPO QuickSeam Flashing (primer required); or EcoWhite™ 6" QuickSeam Flashing (primer required).

L. Primer is not required: When applying EPDM SA or TPO SA on vertical walls, primer is not required for most applications. The use of an acceptable primer and/or additional surface preparation may be required prior to application, depending on the existing condition of the wall and if any moisture is present. Firestone recommends testing a small area for application to determine if a primer is required.

M. For a link to YouTube videos for the different membrane application methods, please see [Firestone RubberGard EPDM SA YouTube Video](#) for RubberGard EPDM SA and [Firestone UltraPly TPO SA YouTube Video](#) for UltraPly TPO SA

N. See link at [Firestone Rooftop Tips Securebond](#) for Rooftop Tips on the installation of Firestone's RubberGard EPDM SA and UltraPly TPO SA membranes with Secure Bond Technology. For updated EPDM SA and TPO SA Technical Information Sheets (TIS), Details and Application Guides, please visit www.firestonebpc.com or contact your Building Systems Advisor at 1-800-428-4511 and press 1 for additional information.

Respectfully,



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