

R-Shield® insulation is used in a wide range of UL Roof Listings, UL Roof Deck Constructions, and UL Hourly Designs. This document provides basic information on the use of R-Shield insulation products and these applications. For complete and the most up to date information, please refer to the UL Online Certifications Directory.

## SINGLE PLY MEMBRANE SYSTEMS

### Class A - Fully Adhered

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**Deck:** NC**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Soprema “EPS FLAM STICK”, self adhered.**Cap Sheet:** Soprema “Sopralene Flam 180 FR+ Granular” or “Sopralene Flam 250 FR+ Granular”, heat welded.

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**Deck:** NC**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Soprema “EPS FLAM STICK FR”, self adhered.**Cap Sheet:** Soprema “Sopralene Flam 180 FR+ Granular” or “Sopralene Flam 250 FR+ Granular”, heat welded.

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**Deck:** C-15/32**Barrier Board:** 1/4 in. (min) G-P Gypsum DensDeck® or 1/2 in. (min) gypsum board with 6 in. offset to plywood joints.**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** “EPS FLAM STICK”, self adhered.**Cap Sheet:** Soprema “Sopralene Flam 180 FR + Granular” or “Sopralene Flam 250 FR + Granular”, heat welded.

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**Deck:** NC**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Polyglass “ELASATOFLEX SA V FR BASE”, self adhered.**Ply Sheet (Optional):** Polyglass “ELASATOFLEX SA V FR BASE”, self adhered.**Membrane:** Polyglass “ELASATOFLEX SA V FR”, self adhered.

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**Deck:** C-15/32**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Polyglass “ELASATOFLEX SA V FR BASE”, self adhered.**Ply Sheet (Optional):** Polyglass “ELASATOFLEX SA V FR BASE”, self adhered.**Membrane:** Polyglass, “ELASATOFLEX SA V FR “, self adhered.

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**Deck:** NC**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Polyglass “ELASTOFLEX SA V FR BASE”, self adhered.**Ply Sheet (Optional):** Polyglass “ELASTOFLEX SA V FR BASE”, self adhered.**Membrane:** Polyglass “ELASTOFLEX VG FR”, heat adhered.

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**Deck:** NC**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.**Base Sheet:** Ridglass Manufacturing “Roofgard HD” self-adhered.**Ply Sheet (Optional):** Ridglass Manufacturing “Roofgard Base-Ply G” self-adhered.**Membrane:** Ridglass Manufacturing “Roofgard FR G” self-adhered.

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**Deck:** NC**Insulation:** “R-Shield EPS-ST”, any thickness, any density, mechanically attached.**Membrane:** GAF Materials Corp. “EverGuard Freedom TPO” or GenFlex Roofing Systems “GenFlex Peel & Stick TPO”, max. 60 mil, self-adhered.

**Note:** Information deemed reliable at time of printing.  
Please refer to the UL Online Certifications Directory for the latest information.

## SINGLE PLY MEMBRANE SYSTEMS (CONT.)

### Class A, B or C - Fully Adhered

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, “R-Shield PLUS”, or “R-Shield Nailbase”, any thickness, field covered with perlite 3/4 in. min thickness or 1/2 in. min USG Interiors “Micore MC 180,” Huebert wood fiber, Georgia-Pacific “Sturdi-Top”, Wood Fiber Industries “Structodeck”, Celotex wood fiber, Temple-Inland “Fiber Base” or other wood fiber at 1 in. min thickness).

**Membrane:** Any UL Classified modified bitumen system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Max incline, attachment of membrane, and surfacing of membrane shall be in accordance with Classification established for membrane/insulation roofing system.

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**Deck:** NC

**Insulation:** EPS/perlite or EPS/wood fiber (perlite 3/4 in. min thickness or 1/2 in. min USG Interiors’ “Micore MC 180”, Huebert wood fiber, Georgia-Pacific Corp. “Strudi-Top”, Wood Fiber Industries’ “Structodeck”, Celotex wood fiber, Temple-Inland “Fiber Base” or other wood fiber at 1 in. min thickness), any combination, any thickness of the following: “R-Shield”, “R-Shield Tapered”, or “R-Shield R-SHIELD”, field covered with perlite or wood fiber, any thickness.

**Membrane:** Any UL Classified EPDM, CPE, CSPE, PVE, CR, NBP or PIB membrane system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Maximum incline, attachment of membrane, and surfacing of membrane shall be in accordance with Classification established for membrane/insulation roofing system.

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**Deck:** NC

**Insulation:** “R-Shield Nailbase”, any thickness.

**Membrane:** Any UL Classified modified bitumen system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Max incline and surfacing shall be in accordance with the classification established for the insulation/membrane roofing system. Base sheet (if any) shall be in accordance with the classification established for the insulation/membrane roofing system.

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**Deck:** NC

**Insulation:** “R-Shield Nailbase”, any thickness.

**Membrane:** Any UL Classified EPDM, CPE, CSPE, PVC, CR, NBP, TPO or PIB membrane system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Max incline, attachment of membrane and surfacing shall be in accordance with the classification established for the membrane/insulation roofing system.

### Class A - Mechanically Fastened

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.

**Slip Sheet:** Elk “VersaShield FB-1S”.

**Membrane:** Any UL Classified CPE, CSPE, PVC, NBP, TPA, or EIP.

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.

**Slip Sheet:** Elk “VersaShield FB-1S”.

**Membrane:** Any UL Classified TPO or PIB.

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.

**Slip Sheet:** Elk “VersaShield FB-1S”.

**Membrane:** Any UL Classified EPDM.

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.

**Slip Sheet:** Atlas Roofing “FR 10” or “FR 11”.

**Membrane:** HPG Roofing Systems “SR 50”, “SR 60” or “SR 80”.

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**Deck:** NC

**Insulation:** “R-Shield”, “R-Shield Tapered”, or “R-Shield PLUS”, any thickness.

**Slip Sheet:** Atlas Roofing “FR 10” or “FR 11”.

**Membrane:** Seal-Dry/USA System “3000”, “5000” or “7000” (PVC).

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## SINGLE PLY MEMBRANE SYSTEMS (CONT.)

### Class A - Mechanically Fastened (cont.)

**Deck:** NC

**Insulation:** R-Shield, "R-Shield Tapered", or "R-Shield PLUS", any thickness.

**Slip Sheet:** Atlas Roofing "FR 10" or "FR 11".

**Membrane:** JPS Elastomerics "Hi-Tuff" (CSM).

**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", or "R-Shield PLUS", any thickness.

**Slip Sheet:** Atlas Roofing "FR 10" or "FR 11".

**Membrane:** Sarnafil "S327" or "G410".

**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", or "R-Shield PLUS", any thickness.

**Slip Sheet:** Atlas Roofing "FR 10" or "FR 11".

**Membrane:** Cooley "C3" (TPA).

**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", or "R-Shield PLUS", any thickness.

**Slip Sheet:** Atlas Roofing "FR 10" or "FR 11".

**Membrane:** Duro-Last "Duro-Last" (PVC).

**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", or "R-Shield PLUS", any thickness.

**Slip Sheet:** Atlas Roofing "FR 10" or "FR 11".

**Membrane:** Bond Cote Roofing Systems "Bond Cote".

**Deck:** NC

**Insulation:** "R-Shield EPS-ST", any thickness.

**Membrane:** Any UL Classified CPE, CSPE, PVC, NBP, TPA, or EIP.

**Deck:** NC

**Insulation:** "R-Shield EPS-ST", any thickness.

**Membrane:** Carlisle Syntec "Sure Weld" TPO Membrane.

**Deck:** NC

**Insulation:** "R-Shield EPS-ST", any thickness.

**Membrane:** Firestone "FR-EPDM".

**Deck:** NC

**Insulation:** "R-Shield EPS-ST", any thickness and density, mechanically attached.

**Membrane:** Any UL Classified PVC, CSPE or TPO, max. 60 mil.

### Class B - Mechanically Fastened

**Deck:** C-15/32

**Insulation:** "R-Shield", "R-Shield Tapered", or "R-Shield PLUS", min. 3/4" thick.

**Slip Sheet:** Two layers of Elk "VersaShield FB-1S."

**Membrane:** Any UL Classified membrane.

### Class A, B or C - Mechanically Fastened

**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness, field covered with perlite 3/4 in. min thickness or 1/2 in. min USG Interiors "Micore MC 180," Huebert wood fiber, Georgia-Pacific "Sturdi-Top", Wood Fiber Industries "Structodeck", Celotex wood fiber, Temple-Inland "Fiber Base" or other wood fiber at 1 in. min thickness).

**Membrane:** Any UL Classified single ply membrane system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Max incline, attachment of membrane and surfacing shall be in accordance with the classification established for the membrane/insulation roofing system.

**Deck:** NC

**Insulation:** "R-Shield Nailbase", any thickness.

**Membrane:** Any UL Classified single ply membrane system suitable for use with any roof insulation.

**Surfacing:** See note.

Note: Classification (A, B or C) will be the same as that for the original insulation/membrane roofing system. Max incline, attachment of membrane and surfacing shall be in accordance with the classification established for the membrane/insulation roofing system.

### Class A - Ballasted

**Deck:** C-15/32

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness, field covered with 1/2 in. min perlite.

**Membrane:** Any UL Classified membrane system.

**Surfacing:** River bottom stone (3/4 to 1-1/2 in. diam), 1000 lb/sq.

## SINGLE PLY MEMBRANE SYSTEMS (CONT.)

### Class A - Ballasted (cont.)

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**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness.

**Membrane:** Any UL Classified membrane system.

**Surfacing:** River bottom stone (3/4 to 1-1/2 in. diam), 1000 lb/sq.

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**Deck:** NC

A.) Monolithic poured cementitious deck. B.) Steel covered with gypsum board or perlite board, 1/2 in. min. C.) Structural decks with all joints covered with Type 30 base sheet, extending 6 in. (min) on each side of joint. D.) Metal deck covered with cellular concrete, gypsum concrete, vermiculite concrete or perlite concrete.

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness.

**Membrane:** Any UL Classified membrane system.

**Surfacing:** River bottom stone (3/4 in. to 1-1/2 in. diam), 1000 lb/sq.

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**Deck:** NC

**Insulation:** "R-Shield EPS-ST", any thickness, mechanically attached.

**Membrane:** Any UL Classified membrane.

**Surfacing:** River bottom stone (3/4 in. to 1-1/2 in. diam), 1000 lb/sq.

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## ASPHALT FELT SYSTEMS WITH HOT ROOFING ASPHALT

### Class A

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**Deck:** NC

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness, field covered with 1/2 in. min perlite, 1/2 in. min wood fiber, or 1/4 in. min DensDeck.

**Ply Sheet:** Three to five plies Type 15, G1 or G2.

**Surfacing:** Gravel or Type G3 mineral surfaced cap sheet.

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**Deck:** C-15/32

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness, field covered with 3/4 in. min perlite.

**Ply Sheet:** Three to five plies Type 15, G1 or G2.

**Surfacing:** Gravel or Type G3 mineral surfaced cap sheet.

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**Deck:** C-15/32

**Insulation:** "R-Shield", "R-Shield Tapered", "R-Shield PLUS", or "R-Shield Nailbase", any thickness, field covered with 3/4 in. min perlite.

**Ply Sheet:** Two or more plies Type 15, G1 or G2 (glass plies required with Type G3 cap sheet).

**Surfacing:** Gravel or Type G3 mineral surfaced cap sheet.

## MAINTENANCE AND REPAIR SYSTEMS

### Class A

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See [UL Online Certifications Directory](#) for current listings.

## UL ROOF DECK CONSTRUCTIONS.

R-Shield is suitable for use in the following UL Roof Deck Constructions.

No. 76	No. 100	No. 155	No. 219	No. 237
No. 292	No. 319	No. 342	No. 342A	No. 374
No. 419	No. 427	No. 458	No. 486	No. 487
No. 581	No. 631	No. 645	No. 666	No. 667
No. 681	No. 683	No. 687		

## UL HOURLY DESIGNS.

R-Shield is suitable for use in the following hourly designs.

D303	D755	D759	D775	D795	D902	D916
D922	D923	D927	D929	D949	D957	D958
D975	P225	P230	P231	P235	P238	P246
P250	P251	P254	P255	P259	P261	P264
P269	P302	P404	P410	P411	P503	P508
P509	P510	P511	P513	P514	P515	P519
P520	P521	P525	P527	P535	P540	P541
P542	P543	P546	P550	P551	P553	P562
P563	P564	P678	P701	P710	P713	P717
P719	P725	P731	P732	P734	P735	P739
P741	P742	P749	P751	P825	P828	P840
P902	P904	P905	P907	P909	P910	P912
P913	P915	P916	P919	P920	P921	P922
P923	P925	P926	P928	P929	P930	P936
P939	P940	P942	P943	P944	P945	P947