Note: We are enhancing our systems and you may notice duplicate entries/missing/outdated data. During this interim period, please contact our Customer Service at https://www.ul.com/about/locations.

Roofing Systems

COMPANY

GAF
1 Campus Dr
Parsippany, NJ 07054 United States

R1306

"RUBEROID® 20 Smooth" or "RUBEROID® Mop Smooth" or "RUBEROID® Mop Smooth 1.5" may be utilized as an alternate to Type G2 "GAFGLAS® #75 Base Sheet" or "Tri-Ply® #75 Base Sheet" or "GAFGLAS® #80 Ultima™ Base Sheet" base sheets in any of the following Classifications.

Torch applied "RUBEROID® HW" SBS roofing membranes may be used as alternates to "RUBEROID® Mop" SBS roofing membranes in any applicable Classification as follows:

A. "RUBEROID® HW Smooth" may be used as an alternate to "RUBEROID® Mop Smooth" or "RUBEROID® Mop Smooth 1.5"

B. "RUBEROID® HW 25 Smooth" or "Ruberoid® HW 20 Smooth" may be used as an alternate to "RUBEROID® 20 Smooth"

C. "RUBEROID® HW Granule" may be used as an alternate to "RUBEROID® Mop Granule"

D. "RUBEROID® HW Plus Granule" may be used as an alternate to "RUBEROID® Mop Plus Granule"

E. "Ruberoid® HW Granule FR" may be used as an alternate to "Ruberoid® Mop Granule FR"

F. "RUBEROID® HW Plus Granule FR" may be used as an alternate to "RUBEROID® Mop Plus Granule FR"

G. "RUBEROID® EnergyCap HW Plus Granule FR" may be used as an alternate to "RUBEROID® EnergyCap Mop Plus Granule FR"

Minimum 1/2-in. thick gypsum board or minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard" or 5/8-in. thick Georgia-Pacific Gypsum LLC "DensDeck Prime® STORMX™ Roofboard" or minimum ¼-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) or "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) or "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX) may be used in any existing noncombustible roof deck Classification. When this is done, the resulting roofing system is acceptable for use over minimum 15/32-in. thick combustible roof decks. However, the butt joints in the

gypsum board and Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard" are to offset a minimum of 6-in. with the butt joints in the roof deck. If polystyrene is part of the roof system, it must be placed below the overlayment board. Minimum ¼-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) and "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) and "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX) are limited to a maximum 3:12 inline when used over a combustible roof deck in a system with any UL Classified insulation except polystyrene.

"EnergyGuard™ NH HD Barrier" is an acceptable alternate to "EnergyGuard™ HD Barrier", "EnergyGuard™ NH HD" and "EnergyGuard™ NH HD Plus" in all applicable Classifications with a limitation that the minimum thickness of any single ply membranes used in the Classification shall be 60-mils.

Multiple plies of Type G1 "GAFGLAS® Ply 4" or "Tri-Ply® Ply 4" or "GAFGLAS® Flex Ply 6" or "Tri-Ply® Ultra-Flexible Ply 6" may be adhered to Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard" in hot roofing asphalt.

"GAFGLAS® FlexPly™ 6 5L" and "GAFGLAS® FlexPly™ 6" may be used interchangeably in any roof covering system listed below.

"EnergyGuard™ Ultra" is an acceptable alternate to "EnergyGuard™" in any applicable Classification.

"GAFGLAS® Stratavent® Nailable Venting Base Sheet" may be mechanically fastened or fully adhered with hot roofing asphalt over noncombustible roof decks and as a recover over existing roof covering systems.

"EnergyGuard™ Perlite Insulation" may be utilized as a cover board over "EnergyGuard™" in any of the following systems.

Unless otherwise indicated, the roof insulation is mechanically fastened, fully adhered with hot roofing asphalt or UL Classified urethane insulation adhesive. Polystyrene referenced in any of the following Classifications include insulation.

Unless otherwise indicated, all insulations may be adhered with any UL Classified Insulation Adhesive per the manufacturer's installation instructions (excluding "LRF Adhesive O") in any applicable non-combustible roof deck Classifications.

"EnergyGuard™ Tapered" is an acceptable alternate to "EnergyGuard™" in any applicable Classification.

"EnergyGuard™ Ultra Tapered" is an acceptable alternate to "EnergyGuard™ Ultra" in any applicable Classification.

"EnergyGuard™ NH Tapered" is an acceptable alternate to "EnergyGuard™ NH" in any applicable Classification.

"EnergyGuard™ NH Ultra Tapered" is an acceptable alternate to "EnergyGuard™ NH Ultra" in any applicable Classification.

"EnergyGuard™ Barrier Tapered" is an acceptable alternate to "EnergyGuard™ Barrier".

"EnergyGuard™ NH Barrier Tapered" is an acceptable alternate to "EnergyGuard™ NH Barrier".

Minimum ½-in. thick "EnergyGuard™ Barrier" is an acceptable alternate to "EnergyGuard™ Ultra" in any applicable Classification.

Minimum ½-in. thick "EnergyGuard™ NH Barrier" is an acceptable alternate to "EnergyGuard™ NH Ultra" in any applicable Classification.

"EnergyGuard™ RA Tapered" may be substituted for "EnergyGuard™ RA" in any of the systems listed below that utilize "EnergyGuard™ RA". "EnergyGuard™ RA" may be perforated on one side for use as the contact side for BUR or modified bitumen membrane.

"EnergyGuard™ RA Ultra Tapered" may be substituted for "EnergyGuard™ RA Ultra" in any of the systems listed below.

"EnergyGuard™ RA Ultra" may be substituted for "EnergyGuard™ RA" polyisocyanurate insulation in any of the following Classifications.

For Combustible Roof Decks – Class A: A minimum 3 in. layer or a minimum two layers of 1.5 in. of "EnergyGuard™ RA Ultra" is placed directly over a combustible deck and is covered with any UL Classified roofing membrane used in any UL Class A roofing assembly to achieve a Class A fire Classification. As an alternative, any UL Classified insulation (except expanded or extruded polystyrene), any combination, any thickness, may be used below the 3 in. minimum total thickness

Base Sheet: — One ply "RUBEROID® Mop Smooth 1.5" adhered in H.B. Fuller Company "Millennium Hurricane Force Membrane Adhesive HS" applied as 1/2 to 3/4-in wide beads spaced 12-in. o.c.
Membrane: — "RUBEROID® Mop Granule" adhered in H. B. Fuller Company "Millennium Hurricane Force Membrane Adhesive HS" applied as 1/2 to 3/4-in. wide beads spaced 12-in. o.c.

19. **Deck:** C-15/32 **Incline:** 1

Primer (Optional): — Asphalt primer complying with ASTM D41/D41M, applied at a rate of 0.5 to 1-gal./100-ft.^{2}.
Insulation (Optional): — Any UL Classified polyiso, any thickness.
Base Sheet: — One or more plies "Liberty™ SBS Self-Adhering Base/Ply Sheet", self-adhered.
Cap Sheet: — One or more plies "Liberty™ SBS Self-Adhering Cap Sheet", self-adhered.

20. **Deck:** C-15/32 **Incline:** 1

Barrier Board (Optional): — One or more layers minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard"; or 5/8-in. thick Georgia-Pacific Gypsum LLC "DensDeck Prime® STORMX™ Roofboard"; or minimum 1/4-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) or "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) or "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX) or minimum 1/4-in. thick National Gypsum Co "DEXcell Glass Mat Roof Board" or "DEXcellFA Glass Mat Roof Board".
Insulation (Optional): — Perlite or fiberboard or high-density fiberboard or polyisocyanurate or perlite/polyisocyanurate or fiberboard/polyisocyanurate.
Base Sheet: — One or more plies "GAFGLAS® #75 Base Sheet" or "Tri-Ply® #75 Base Sheet" or "GAFGLAS® #80 Ultima™ Base Sheet" or "GAFGLAS® Stratavent® Nailable Venting Base Sheet" or "RUBEROID® 20 Smooth" or "RUBEROID® Mop Smooth" or "RUBEROID® Mop Smooth 1.5" or "RUBEROID® Mop Plus Smooth" mechanically fastened
Cap Sheet: — "RUBEROID® Torch Smooth" or "Tri-Ply® APP Smooth" or "RUBEROID® Torch Granule" or "RUBEROID® Torch 180" or "Tri-Ply® APP Granule", "Tri-Ply® APP Smooth NB" torch applied

SINGLE PLY MEMBRANE SYSTEMS

Class A, B or C (See Note)

1. **Deck:** NC (See Note 1) **Incline:** See Note 1
Insulation: — Any UL Classified, any thickness, adhered with "TPO LRF Adhesive M LTA."
Membrane: — Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation.

Note 1: Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck.

2. **Deck:** NC (See Note 1) **Incline:** See Note 1

Insulation: — Any UL Classified, any thickness, adhered with "LRF Adhesive M Canister"

Membrane: — Any UL Classified modified bitumen system, BUR system or CPE, CSM, CSPE, EPDM, NBP, PIB, PVC, TPO or TRE membrane system suitable for use with any roof insulation.

Note 1: Classification (A, B or C) and maximum incline will be the same as that of the Classified Roofing System (TGFU) currently limited to noncombustible deck.

Class A — Ballasted

8. **Deck:** C-15/32 **Incline:** 1/2
Slip Sheet: — One ply "VersaShield® Solo™ Fire Resistant Slipsheet" or "VersaShield® Fire-Resistant Roof Deck Protection", mechanically fastened.
Membrane: — "EverGuard® PVC", "EverGuard® PVC KEE", "EverGuard® PVC XK" or "EverGuard® PVC Smooth" 50-mil to 80-mil, mechanically fastened.

9. **Deck:** C-15/32 **Incline:** 2
Insulation: — Polystyrene or EPS or beadboard, any thickness, mechanically fastened.
Slip Sheet: — One or more plies "VersaShield® Solo™ Fire Resistant Slipsheet", mechanically fastened.
Membrane: — Any GAF Classified (membrane must be currently Classified for use over the insulation used. Actual incline is determined by the existing membrane/insulation Classification, but cannot exceed 2:12), mechanically fastened.

10. **Deck:** C-15/32 **Incline:** 1/2
Insulation (Optional): — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard™ RN" or Hunter Panels "H-shield", or wood fiber or glass fiber or perlite, any thickness, mechanically fastened.
Insulation: — Minimum 1-1/2 in. thick "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or minimum 1/2-in. thick "EnergyGuard™ Barrier" or "EnergyGuard™ HD Barrier" or "EnergyGuard™ NH Barrier" mechanically fastened with butt joints in the insulation staggered a minimum of 12-in. from butt joints in plywood roof deck.
Membrane: — "EverGuard® PVC", "EverGuard® PVC KEE", "EverGuard® PVC" 45-mil to 80-mil mechanically fastened.

11. **Deck:** NC **Incline:** 1

Barrier Board: — For standing seam steel decks, 2-in. maximum perlite between the seams.
Insulation: — "EnergyGuard™ HD-MA Polyiso Cover Board", mechanically fastened.
Membrane: — "EverGuard® PVC", "EverGuard® PVC KEE", "EverGuard® PVC XK" or "EverGuard® PVC Smooth" 50-mil to 80-mil, mechanically fastened.

Class C - Mechanically Fastened

1. **Deck:** NC **Incline:** 4
Insulation: — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard™ RA" or "EnergyGuard™ RA Tapered" or "EnergyGuard™ RA Ultra" or "EnergyGuard™ RA Ultra Tapered" or "EnergyGuard™ RA HD" or "EnergyGuard™ RN" or "EnergyGuard™ RM" or "EnergyGuard™ RF", 1-in. minimum, mechanically fastened.
Membrane: — "EverGuard® PVC", "EverGuard® PVC KEE", "EverGuard® PVC XK" or "EverGuard® PVC Smooth" 50-mil to 80-mil, mechanically fastened.

SINGLE PLY MEMBRANE ROOFING SYSTEMS (TPO)

A vapor barrier may be optionally installed under all systems utilizing any polyisocyanurate insulation in the following systems.

"EnergyGuard™ Perlite" may be used as an option over any "EnergyGuard™" type insulation. "GAFGLAS® Stratavent Perforated Base Sheet" may be utilized as an additional ply in any of the following systems.

Class A - Ballasted

1. **Deck:** NC **Incline:** 2

Insulation: — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard Tapered™" or "EnergyGuard™ Foil-Faced" or Hunter Panels "H-shield", any thickness, laid loosely or mechanically fastened or fully adhered with hot roofing asphalt or adhered "LRF Adhesive M" or "TPO LRF Adhesive M Low Temp" or OMG Inc. "Olybond Fastening System", applied as a nominal 3/4-in. bead or "GAF 2-Part Roofing Adhesive", applied as a nominal 2-1/2 in. bead with a maximum on-center spacing of 12-in. or any UL Classified insulation adhesive, applied per the manufacturer's installation instructions.

Cover Board (Optional): — One or more layers minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard"; or 5/8-in. thick Georgia-Pacific Gypsum LLC "DensDeck Prime® STORMX™ Roofboard"; or minimum 1/4-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) or "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) or "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX); or minimum 1/4-in. thick National Gypsum Co "DEXcell Glass Mat Roof Board" or "DEXcell FA Glass Mat Roof Board" or minimum 7/16-in. thick "DEXcell Cement Roof Board"; or 1/2-in. thick "EnergyGuard™ HD", "EnergyGuard™ HD Plus", "EnergyGuard™ HD Barrier" or "EnergyGuard™ NH HD" or "EnergyGuard™ NH HD Plus" or minimum 1.5-in. thick "EnergyGuard™ Polyiso – HD Composite Insulation" or "Ultra HD Composite Insulation", mechanically fastened or adhered with any UL Certified insulation adhesive.

Membrane: — Any UL Classified TPO single ply membrane, fully adhered or mechanically fastened or loose laid.

Surfacing: — No. 6 River bottom stone 3/4-in. to 1-1/2 in. diameter or concrete pavers spaced a maximum of 1/8-in. apart, applied at rate of 1000-lbs./100-ft.^{2}.

2. **Deck:** NC **Incline:** 2

Insulation: — Polyisocyanurate EPS, wood fiber or perlite, adhered with "GAF LRF Adhesive XF" insulation adhesive dispensed as a nominal 1-inch diameter bead at a rate of 1 lin/ft per sq ft of insulation board.

Membrane: — Any UL Classified membrane, mechanically fastened, self-adhered, or loose laid.

Surfacing: — Minimum 400 lbs/100-ft2 of roofing gravel or crushed stone or 300 lbs/100-ft2 of crushed slag embedded in a flood coat of hot roofing coal tar pitch.

Class A - Fully Adhered

Unless otherwise indicated in the Certifications described below, "EverGuard® TPO 3 Square Low VOC Bonding Adhesive" may only be used with gray, tan, white, "Energy Grey" and "Energy Tan" colored "EverGuard® TPO" or "EverGuard® Extreme™ TPO" membranes.

1. **Deck:** NC **Incline:** 1/4

Barrier Board (Optional): — One or more layers minimum 1/4-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard"; or 5/8-in. thick Georgia-Pacific Gypsum LLC "DensDeck Prime® STORMX™ Roofboard"; or minimum 1/4-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) or "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) or "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX) or minimum 1/4-in. thick National Gypsum Co "DEXcell Glass Mat Roof Board" or "DEXcell FA Glass Mat Roof Board" or minimum 7/16-in. thick "DEXcell Cement Roof Board".

Insulation: — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard™ RA" or "EnergyGuard™ RA Tapered" or "EnergyGuard™ RA Ultra" or "EnergyGuard™ RA Ultra Tapered" or "EnergyGuard™ RA HD" or "EnergyGuard™ RN" or "EnergyGuard™ RF" or "EnergyGuard™ RM" or wood fiber or glass fiber or perlite, any thickness.

Cover Board (Optional): — 1/2-in. thick "EnergyGuard™ HD", "EnergyGuard™ HD Plus", "EnergyGuard™ HD Barrier" or "EnergyGuard™ NH HD" or "EnergyGuard™ NH HD Plus" or minimum 1.5-in. thick "EnergyGuard™

Barrier Coating", applied at a rate of 1-gal./100-ft.^{2}.
Base Sheet (Optional): — One ply Type G2 "GAFGLAS® #75 Base Sheet" or "Tri-Ply® #75 Base Sheet" or "GAFGLAS® #80 Ultima™ Base Sheet" or "GAFGLAS® Stratavent® Nailable Venting Base Sheet", mechanically fastened.
Slip Sheet (Optional): — One ply "VersaShield® Solo™ Fire Resistant Slipsheet" or "VersaShield® Fire-Resistant Roof Deck Protection" or Atlas Roofing Corp. "FR-10" or "FR-50", mechanically fastened.
Slip Sheet: — One ply "StormSafe™" mechanically fastened.
Membrane: — "EverGuard® Freedom™ TPO HW" 45-mil to 80-mil, self-adhered.

17. **Deck:** NC **Incline:** 1/4
Insulation: — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ RA" or "EnergyGuard™ RA Tapered" or "EnergyGuard™ RA Ultra" or "EnergyGuard™ RA Ultra Tapered" or "EnergyGuard™ RA HD" or "EnergyGuard™ RF" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard™ RN" or "EnergyGuard™ RM", any thickness, any combination.
Cover Board (Optional): — 1/2-in. thick "EnergyGuard™ HD", "EnergyGuard™ HD Plus", "EnergyGuard™ HD Barrier" or "EnergyGuard™ NH HD" or "EnergyGuard™ NH HD Plus" or minimum 1.5-in. thick "EnergyGuard™ Polyiso – HD Composite Insulation" or "Ultra HD Composite Insulation", mechanically fastened.
Membrane: — "EverGuard® TPO" 60-mil to 80-mil or "EverGuard Extreme® TPO" 60-mil to 80-mil, fully adhered with "EverGuard® #1121 Bonding Adhesive" or "EverGuard TPO 1121 Bonding Adhesive" or "EverGuard® TPO 3 Square Low VOC Bonding Adhesive" or H.B. Fuller Company "SB15475" applied at a rate of 60-ft.^{2}/gal. or "FastLayn™ TPO Adhesive" spray applied at a rate of 0.4-gal./100-ft.^{2}.

18. **Deck:** NC **Incline:** 1/4
Insulation: — "EnergyGuard™" or "EnergyGuard™ NH" or "EnergyGuard™ RF" or "EnergyGuard™ Ultra" or "EnergyGuard™ NH Ultra" or "EnergyGuard™ RA" or "EnergyGuard™ RA Tapered" or "EnergyGuard™ RA Ultra" or "EnergyGuard™ RA Ultra Tapered" or "EnergyGuard™ RA HD" or "EnergyGuard™ RN" or "EnergyGuard® RH" or "EnergyGuard™ RM", any thickness, any combination.
Cover Board (Optional): — 1/2-in. thick "EnergyGuard™ HD", "EnergyGuard™ HD Plus", "EnergyGuard™ HD Barrier" or "EnergyGuard™ NH HD" or "EnergyGuard™ NH HD Plus" or minimum 1.5-in. thick "EnergyGuard™ Polyiso – HD Composite Insulation" or "Ultra HD Composite Insulation", mechanically fastened.
Membrane: — "EverGuard® TPO" 60-mil to 80-mil or "EverGuard Extreme® TPO" 60-mil to 80-mil, fully adhered with "EverGuard® #1121 Bonding Adhesive" or "EverGuard TPO 1121 Bonding Adhesive" or "EverGuard® TPO 3 Square Low VOC Bonding Adhesive" or H.B. Fuller Company "SB15475" applied at a rate of 60-ft.^{2}/gal. or "FastLayn™ TPO Adhesive" spray applied at a rate of 0.4-gal./100-ft.^{2}.

19. **Deck:** NC **Incline:** 1
Barrier Board (Optional): — Minimum ¼-in. thick Georgia-Pacific Gypsum LLC "DensDeck® Roofboard" or "DensDeck® Prime Roofboard" or "DensDeck® DuraGuard™ Roofboard"; or 5/8-in. thick Georgia-Pacific Gypsum LLC "DensDeck Prime® STORMX™ Roofboard"; or minimum 1/4-in. thick United States Gypsum Co. "SECUROCK® Roof Board" (Type FRX-G) or "SECUROCK® Glass-Mat Roof Board" (Type SGMRX) or "SECUROCK UltraLight Coated Glass-Mat Roof Board" (Type SGMRX) or minimum 1/4-in. thick National Gypsum Co "DEXcell Glass Mat Roof Board" or "DEXcell FA Glass Mat Roof Board" or minimum 7/16-in. thick "DEXcell Cement Roof Board" or gypsum wallboard, mechanically fastened.
Slip Sheet (Optional): — One ply "VersaShield® Fire-Resistant Roof Deck Protection", mechanically fastened.
Base Sheet (Optional): — Type 15 or Type 30 or Type G1 "GAFGLAS® Ply 4" or "Tri-Ply® Ply 4" or "GAFGLAS® Flex Ply 6" or "Tri-Ply® Ultra-Flexible Ply 6" or Type G2 "GAFGLAS® #75 Base Sheet" or "Tri-Ply® #75 Base Sheet" or "GAFGLAS® #80 Ultima™ Base Sheet" or "GAFGLAS® Stratavent® Nailable Venting Base Sheet" or "GAFGLAS® Stratavent® Perforated Venting Base Sheet", mechanically fastened or fully adhered with hot roofing asphalt.