

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

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The following notes apply to the systems outlined herein:

1. Roof decks shall be in accordance with FBC requirements to the satisfaction of the AHJ. Wind load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
2. Unless otherwise noted, fasteners and stress plates for insulation attachment shall be as follows. Fasteners shall be of sufficient length for the following engagements:
 - Wood Deck: Drill-Tec #12 or #14 with Drill-Tec 3" Metal Plates. Min. ¾-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: Drill-Tec #12 or #14 with Drill-Tec 3" Metal Plates. Minimum ¾-inch steel penetration, engage the top flute of the steel deck.
 - Concrete Deck: Drill-Tec #14 with Drill-Tec 3" Metal Plates. Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
3. Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, wood fiberboard, perlite, DensDeck, DensDeck Prime, DensDeck DuraGuard or SECUROCK that meets the QA requirements of F.A.C. Rule 9B-72 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC 2603.4.1 or 2603.6, when installed with the roof cover.
4. Minimum 200 psi, minimum 2-inch thick lightweight insulating concrete may be substituted for rigid insulation board for System Type D (mechanically attached membrane), whereby the membrane fasteners are installed through the LWIC to engage the structural steel or concrete deck. The structural deck shall be of equal or greater configuration to the steel and concrete deck listings.
5. Preliminary insulation attachment for System Type D = Minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.
6. Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - Hot Asphalt (HA): Full mopping, 25-30 lbs/square.
 - OMG OlyBond Adhesive Fastener (Classic): Full coverage, 1 gal/square.
 - OMG OlyBond 500: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. (Note: OlyBond Adhesive Fastener (Classic), SpotShot or OlyBond Green may be used wherever OlyBond 500 is referenced)
 - Polyfoam TITSEET Insulation Adhesive: Continuous 2.5 to 3.5-inch ribbons, 12-inch o.c.
7. Tapered polyisocyanurate may be substituted for the flat stock board with the following Maximum Design Pressure (MDP) limitations:
 - OMG OlyBond 500 or OlyBond Green: Maximum Design Pressure -120.0 psf
 - Polyfoam TITSEET Insulation Adhesive: Maximum Design Pressure -117.5 psf
8. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
9. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria.
10. For fully bonded assemblies, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
11. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with TAS 105.
12. For existing substrates in a bonded recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907 or FM LPDS 1-52.



13. For System Type D, steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.
14. Side laps for EverGuard Freedom TPO with Rapid Seam Technology are self-adhering. Side laps for EverGuard TPO HW are heat welded. Unless otherwise noted, reference to EverGuard Freedom TPO in this Appendix relates to either method.
15. For adhesive-applied membrane systems, side laps shall be minimum 3-inch wide sealed with min. 1.5-inch heat weld. Unless otherwise noted, membrane adhesive application rates are as follows:
 - EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive: Applied to both the substrate and roof cover underside at 0.8 to 1.0 gal/sq/surface
 - EverGuard TPO / EverGuard H2O Bonding Adhesive: Applied to both the substrate and roof cover underside at 0.415 gal/sq/surface
 - EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive: Applied to the substrate 0.83 gal/sq
16. The "Triposite Roofing System" noted herein consists of loose-laid GAFGLAS Stratavent Eliminator Venting Base Sheet (Perforated), followed by asphalt-applied two (2) plies of Ruberoid 20 or three (3) plies of GAFGLAS FlexPly 6, followed by asphalt-applied EverGuard TPO FB Ultra with 1-5/8" heat welded side laps.

TABLE 1A: NEW CONSTRUCTION or REROOF (Tear-Off) – WOOD DECKS							
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
W-1.	Min. 19/32" plywood or OSB attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	One or more layers min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSESET, 12" o.c.	EverGuard TPO Freedom	-52.5
W-2.	Min. 19/32" plywood or OSB attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	One or more layers min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-52.5

TABLE 1B: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - WOOD DECKS							
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
W-3.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec XHD #15 with Drill-Tec 2" SHD Double-Barbed Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-45.0
W-4.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec XHD #15 with Drill-Tec 2" SHD Double-Barbed Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 55" o.c. and sealed with a 1.75" heat weld.	-52.5
W-5.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using #8 ring shank nails and 4" o.c. at perimeter of sheet with #10 ring shank nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec HD #14 with Drill-Tec 3" SHD Drill-Tec Acu-Trac Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 60" o.c. and sealed with a 1.5" heat weld.	-97.5

TABLE 2A-1: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER – STEEL OR CONCRETE DECKS
SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Fasteners	Attach	Type	Attach		
S-1.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 2 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-45.0
S-2.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-45.0
S-3.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/5 screws or structural concrete	Min. 2" EnergyGuard RA EnergyGuard RN or H-Shield	See Note 2	1 per 1.6 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-60.0
S-4.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 1.5" EnergyGuard	See Note 2	1 per 2 ft ²	One or more layers of Base Insulation or min. 0.5" thick DensDeck	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-5.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 0.5" DensDeck	See Note 2	1 per 2 ft ²	One or more layers, min. 1.5" EnergyGuard	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-6.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-7.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 1.33 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO # 1121 Bonding Adhesive	-60.0

TABLE 2A-2: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER – STEEL DECKS
SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER / TEMP ROOF
BONDED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Thermal Barrier			Vapor Barrier / Temp Roof	Base Insulation		Top Insulation		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Fast.	Attach		Type	Attach	Type	Attach		
S-8.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	Min. 2-ply asphalt BUR	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	HA or OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	HA or OlyBond 500, 12" o.c.	EverGuard Freedom TPO/ self adhered	-37.5
S-9.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	Min. 2-ply asphalt BUR	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	HA or OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	HA or OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO # 1121 Bonding Adhesive	-37.5

TABLE 2B: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER – STEEL OR CONCRETE DECKS
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
EVERGUARD FREEDOM TPO							
S-10.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" DensDeck Prime	See Note 2 (#14 HD only)	1 per 1.8 ft ²	EverGuard Freedom TPO	-37.5
S-11.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" DensDeck DuraGuard Roof Board	See Note 2	1 per 2.7 ft ²	EverGuard Freedom TPO	-45.0
S-12.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2	1 per 3.2 ft ²	EverGuard Freedom TPO	-45.0
S-13.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2	1 per 1.3 ft ²	EverGuard Freedom TPO	-52.5
S-14.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2 (#14 only)	1 per 2 ft ²	EverGuard Freedom TPO	-52.5
EVERGUARD TPO / EVERGUARD TPO #1121 OR EVERGUARD H2O BONDING ADHESIVE							
S-15.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" EnergyGuard HD Fiberboard, GAFTEMP HD Fiberboard, or Structodek HD Fiberboard	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-30.0
S-16.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-17.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-18.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" Dens Deck Prime	See Note 2	1 per 2.13 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-37.5
S-19.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" Dens Deck Prime	See Note 2	1 per 3.2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0

TABLE 2B: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER – STEEL OR CONCRETE DECKS
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
S-20.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625" Dens Deck Prime	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-21.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 7/16" OSB	Drill-Tec XHD with Drill-Tec 3" Metal Plates.	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-22.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 7/16" OSB	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
S-23.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" SECUROCK	See Note 2	1 per 2.67 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-37.5
S-24.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-37.5
S-25.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" SECUROCK	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-26.	Min. 22 ga., Type B, Grade 33 steel	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard RA or EnergyGuard Ultra	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-27.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-28.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625" SECUROCK	See Note 2 (#14 only)	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-82.5
S-29.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-75.0
S-30.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" SECUROCK	See Note 2 (#14 only)	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-105.0
S-31.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 1.33 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0

TABLE 2B: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER – STEEL OR CONCRETE DECKS
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
S-32.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 1 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-172.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
S-33.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard Ultra	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
S-34.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
S-35.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard	See Note 2	1 per 2.67 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
TRIPOSITE ROOFING SYSTEM							
S-36.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 3.2 ft ²	Triposite System / See Note 16	-45.0
S-37.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 2 ft ²	Triposite System / See Note 16	-60.0
S-38.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 1.45 ft ²	Triposite System / See Note 16	-75.0

TABLE 2C: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - STEEL DECKS
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
S-39.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-30.0
S-40.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2-3/8" XHD Plates	Fastened 12" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-30.0
S-41.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2" Double Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-30.0
S-42.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-30.0
S-43.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 18" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.75" heat weld.	-30.0
S-44.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-37.5
S-45.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-37.5
S-46.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard Steep Slope TPO	Drill-Tec XHD or SXHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.75" heat weld.	-37.5
S-47.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-37.5
S-48.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 6" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-45.0
S-49.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-45.0

TABLE 2C: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - STEEL DECKS
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
S-50.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates; or Drill-Tec SXHD with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 54" o.c. and sealed with a 1.5" heat weld.	-45.0
S-51.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 5.5" wide laps spaced 114.5" o.c. and sealed with a 1.5" heat weld.	-45.0
S-52.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO FB Ultra	EverGuard XHD with EverGuard 2-3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 112.5" o.c. and sealed with a 1-5/8" heat weld.	-52.5
S-53.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates or Drill-Tec 2" Double Barbed XHD Plates	Fastened 6" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-52.5
S-54.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2-3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 54" o.c. and sealed with a 1.5" heat weld.	-60.0
S-55.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-60.0
S-56.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.875" heat weld.	-60.0
S-57.	Min. 18 ga., type B, Grade 33 steel at max. 7 ft spans attached 6" o.c. with 5/8" puddle welds	One or more layers, min. 1.5" EnergyGuard	Five (5) fasteners /plates per 4 x 4 ft board	EverGuard TPO	Drill-Tec XHD Fasteners with Drill-Tec 2" Double Barbed XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-90.0

TABLE 3A: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO								
C-1.	Min. 3,000 psi structural concrete	(Optional) See Note A below	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
C-2.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-142.5
C-3.	Min. 3,000 psi structural concrete	(Optional) See Note A below	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	None	-	EverGuard Freedom TPO	-230.0
C-4.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-382.5
C-5.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard Freedom TPO	-142.5
C-6.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITSESET, 12" o.c.	Min. 0.25" SECUROCK	TITSESET, 12" o.c.	EverGuard Freedom TPO	-382.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE								
C-7.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-30.0
C-8.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
C-9.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
C-10.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0

TABLE 3A: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
C-11.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
C-12.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-270.0
C-13.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
C-14.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
C-15.	Min. 2,500 psi concrete	(Optional) See Note A below	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
C-16.	Min. 2,500 psi concrete	(Optional) See Note A below	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
C-17.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
C-18.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-270.0
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE								
C-19.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-30.0
C-20.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5

TABLE 3A: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
C-21.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
C-22.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
C-23.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
C-24.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
C-25.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-270.0
C-26.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
C-27.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
C-28.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-270.0
TRIPOSITE ROOFING SYSTEM								
C-29.	Min. 2,500 psi concrete	None	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	Triposite System. See Note 16	-172.5

A. The following are options for installation of an optional vapor barrier / temporary roof on the concrete deck prior to insulation placement. If vapor barrier / temp roof is installed, concrete deck shall be primed with ASTM D41 primer prior to its installation. Maximum design pressure (MDP) shall be the lesser of that for the system in Table 3A, and that for the vapor barrier / insulation adhesive noted below.

1. For use with OlyBond 500 or SpotShot applied insulation:
 - One or two plies asphalt-applied GAF base and/or ply sheet: MDP -352.5 psf
 - Ruberoid 20 adhered in Matrix 102 in full coverage: MDP -202.5 psf
 - Ruberoid Torch Smooth heat welded: MDP -142.5 psf
 - Ruberoid Heat Weld Smooth heat welded: MDP -232.5 psf
2. For use with TITASET applied insulation:
 - One or two plies asphalt-applied GAF base and/or ply sheet: MDP -262.5 psf
 - Optional asphalt-applied GAF base or ply sheet or base membrane with asphalt-applied GAF cap membrane: MDP -270.0 psf
 - Optional asphalt-applied GAF base or ply sheet or base membrane or heat-welded GAF base membrane with heat-welded GAF cap membrane: MDP -169.0 psf
 - Optional self-adhering Liberty base membrane with Liberty cap membrane: MDP – 250.0 psf

TABLE 3B: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (See Note 1)	Roof Cover / Adhesive	Max. Design Pressure (psf)
C-30.	Min. 3,000 psi structural concrete primed with GAF Top-Coat Surface Seal SB	EverGuard Freedom TPO	-410.0
C-31.	Min. 2,500 psi structural concrete	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-135.0

TABLE 4A: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Struct Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
EVERGUARD FREEDOM TPO								
LWC-1.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO Freedom	-142.5
LWC-2.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-225.0
LWC-3.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO Freedom	-142.5
LWC-4.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-180.0
LWC-5.	Concrete	Min. 200 psi, min. 2" thick Celcore	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-222.5
LWC-6.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-240.0
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE								
LWC-7.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime or SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
LWC-8.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
LWC-9.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-10.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0

TABLE 4A: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Struct Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
LWC-11.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-225.0
LWC-12.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" thick, min. 1.25 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
LWC-13.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
LWC-14.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-15.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-16.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-222.5
LWC-17.	Concrete	Min. 200 psi, min. 2" thick Celcore	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 2.0 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-222.5
LWC-18.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
LWC-19.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 2.0 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0

TABLE 4A: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Roof Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE								
LWC-20.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
LWC-21.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
LWC-22.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-180.0
LWC-23.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" thick, min. 1.25 pcf density ASTM C578 expanded or extruded EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
LWC-24.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
LWC-25.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-180.0
LWC-26.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-222.5
LWC-27.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-240.0

TABLE 4B: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Roof Deck (See Note 1)		Base Sheet			Roof Cover / Adhesive	Max. Design Pressure (psf)
	Structural Deck	LWC (See Note 1)	Type	Fasteners	Attach		
LWC-28.	Min. 22 ga., type B, Grade 33 vented steel at max. 6 ft spans attached 6" o.c. with 5/8" puddle welds.	Min. 250-300 psi, min. 2" thick cellular lightweight concrete	GAF STORMSAFE	Drill-Tec #12 screws and 3" Drill-Tec AccuTrac Plates	12" o.c. at the 4" lap and 12" o.c. in three, equally spaced, staggered rows in the center of the sheet	EverGuard Freedom TPO	-45.0
LWC-29.	Min. 22 ga., type B, Grade 33 vented steel at max. 5 ft spans attached 6" o.c. with puddle welds & washers or Traxx/4 or 5 screws	Min. 200 psi, min. 2" thick Celcore	Tri-Flex 30	Drill-Tec CR Base Sheet Fasteners	9" o.c. in the 4" lap and 9" o.c. in three, equally spaced, staggered rows in the center of the sheet	EverGuard Freedom TPO	-52.5

TABLE 4C: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE F: BONDED ROOF COVER

System No.	Roof Deck (See Note 1)			Roof Cover / Adhesive	Max. Design Pressure (psf)
	Structural Deck	LWC (See Note 1)	Primer / Treatment		
LWC-30.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Celcore	EverGuard H2O Bonding Adhesive	EverGuard Freedom TPO	-95.0
LWC-31.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Concrecel	Top Coat Surface Seal SB	EverGuard Freedom TPO	-150.0
LWC-32.	3,000 psi structural concrete, GAF SBS Torch Grade granulated modified cap, heat welded to deck	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard Freedom TPO	-172.5
LWC-33.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Celcore	Top Coat Surface Seal SB	EverGuard Freedom TPO	-217.5
LWC-34.	2,500 psi structural concrete	Min. 300 psi, min. 2" thick Mearlcrete cellular LWC	Top Coat Surface Seal SB	EverGuard Freedom TPO	-300.0
LWC-35.	3,000 psi structural concrete	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	Top Coat Surface Seal SB	EverGuard Freedom TPO	-325.0
LWC-36.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Elastizell	Top Coat Surface Seal SB	EverGuard Freedom TPO	-382.5
LWC-37.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard TPO #1121 Bonding Adhesive	-67.5
LWC-38.	Min. 22 ga., type B, Grade 33 vented steel at max. 5 ft spans attached 6" o.c. with puddle welds & washers or Traxx/4 or 5 screws	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-52.5
LWC-39.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Elastizell	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-75.0
LWC-40.	3,000 psi structural concrete, GAF SBS Torch Grade granulated modified cap, heat welded to deck	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-182.5
LWC-41.	3,000 psi structural concrete	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-195.0
LWC-42.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Elastizell	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-260.0
LWC-43.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-277.5
LWC-44.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Concrecel	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-382.5
LWC-45.	2,500 psi structural concrete	Min. 300 psi, min. 2" thick Mearlcrete cellular LWC	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-472.5

TABLE 5A: NEW CONSTRUCTION or REROOF (Tear-Off) – CEMENTITIOUS WOOD FIBER DECKS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
CWF-1.	Min. 2" Tectum Plank or Tectum LS Plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-45.0
CWF-2.	Min. 2" Tectum Plank or Tectum LS Plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
CWF-3.	Min. 2" Tectum Plank or Tectum LS Plank or Fibroplank	Min. 1.5" EnergyGuard	TITSEET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSEET, 12" o.c.	EverGuard Freedom TPO	-52.5
CWF-4.	Min. 2" Tectum Plank or Tectum LS Plank or Fibroplank	Min. 1.5" EnergyGuard	TITSEET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSEET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-52.5

TABLE 6A: REROOF (Tear-Off) – GYPSUM DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO							
G-1.	Existing poured gypsum or gypsum plank	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
G-2.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-135.0
G-3.	Existing poured gypsum or gypsum plank	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-135.0
G-4.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard Freedom TPO	-142.5
G-5.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-257.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
G-6.	Existing poured gypsum or gypsum plank	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	OlyBond 500, 12" o.c.	None	-	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-215.0
G-7.	Existing poured gypsum or gypsum plank	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
G-8.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
G-9.	Existing poured gypsum or gypsum plank	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-135.0
G-10.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-135.0
G-11.	Existing poured gypsum or gypsum plank	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
G-12.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
G-13.	Existing poured gypsum or gypsum plank	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0

TABLE 6A: REROOF (Tear-Off) – GYPSUM DECKS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
G-14.	Existing poured gypsum or gypsum plank	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
G-15.	Existing poured gypsum or gypsum plank	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
G-16.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-257.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
G-17.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
G-18.	Existing poured gypsum or gypsum plank	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
G-19.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
G-20.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-135.0
G-21.	Existing poured gypsum or gypsum plank	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
G-22.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
G-23.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-257.5

TABLE 6B: REROOF (Tear-Off) – GYPSUM DECKS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Roof Deck	Primer / Treatment	Roof Cover / Adhesive	Max. Design Pressure (psf)
G-24.	Existing poured gypsum or gypsum plank	Top Coat Surface Seal SB	EverGuard Freedom TPO	-490.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO							
R-1.	Existing asphalt BUR or mineral surface cap sheet	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
R-2.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-120.0
R-3.	Existing asphalt BUR or mineral surface cap sheet	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-120.0
R-4.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard Freedom TPO	-142.5
R-5.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITSESET, 12" o.c.	Min. 0.25" SECUROCK	TITSESET, 12" o.c.	EverGuard Freedom TPO	-262.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
R-6.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-30.0
R-7.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
R-8.	Existing asphalt BUR or mineral surface cap sheet	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-9.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-10.	Existing asphalt BUR or mineral surface cap sheet	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-11.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
R-12.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
R-13.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
R-14.	Existing asphalt BUR or mineral surface cap sheet	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
R-15.	Existing asphalt BUR or mineral surface cap sheet	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
R-16.	Existing asphalt BUR or mineral surface cap sheet	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
R-17.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-262.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
R-18.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-30.0
R-19.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
R-20.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
R-21.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
R-22.	Existing asphalt BUR or mineral surface cap sheet	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
R-23.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
R-24.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
R-25.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
R-26.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
R-27.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-262.5

TABLE 7B: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Primer / Treatment	Roof Cover / Adhesive	Max. Design Pressure (psf)
R-28.	Existing asphaltic granule surface cap sheet	None	EverGuard TPO FB Ultra / Hot Asphalt	-405.0