

Roofing Systems, Uplift Resistance

COMPANY

Environmental Roofing Components

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R38388

SINGLE-PLY MEMBRANE SYSTEMS

Roof membrane and substrate component options for the following UL Classified uplift resistance ratings are restricted to any Environmental Roofing Components, LLC UL fire Classified (TGfU) roof assembly combinations as summarized below:

An "ERC WV Valves", where specified, a proprietary product of Environmental Roofing Components, LLC consists of a 6 in. (min) diam. aluminum vent pipe and cap, with a polystyrene insulated sleeve providing a 4 in. (min) diam. opening, covered with a 45-mil EPDM circular membrane flap, which allows free movement of air and water vapor to exit the roof assembly, but restricts air flow into the roof assembly. A 6 in. diam. hole is cut in the roof assembly waterproofing membrane, insulation, and cover boards, to the air sealed deck or substrate. The "ERC WV Valves" are adhered to the waterproofing membrane, and flashed with the appropriate membrane adhesives and mastics.

"ERC WV Valves" are placed in wind uplift vortex intensity areas of the roof for the specific building size, shape, and geographic terrain requirements. On low-sloped flat roofs, two valves shall be used in every corner, and one valve every 50 ft. or less around the perimeter edge.

For roofing systems to be installed (recover) over Existing Roof Systems, the minimum field withdrawal resistance of each type of fastener utilized in the recover roofing system is specified in the individual certifications as guidance to assist Authorities Having Jurisdiction in determining the suitability of a new construction as a recover system.

1. Uplift Resistance — 90 psf.

Deck: — Steel, min 22 MSG. New construction or reroofing over an existing UL Fire Classified roof assembly.

Air Seal: — Environmental Roofing Components 4-mil min thick reinforced polyethylene air barrier (not UL Classified) with end and lap seams overlapped min 6 in., and sealed with 2 in. wide pressure sensitive tape. The poly air barrier must be of sufficient size to wrap over the top of the insulation or cover board, a min of 6 in., around the entire perimeter and at penetrations, to be air sealed to the waterproofing membrane.

Insulation: — Any UL Fire Classified polyisocyanurate and/or 1/2 in. thick gypsum wallboard, with selected waterproofing membrane.

Fasteners: — No. 14 self-drilling screws, with 4 in. diam galvanized Olympic plate (not UL Classified). A total of eleven fasteners per 4 ft by 8 ft. sheet, positioned in three rows located at the centerline and 6 in. from each edge.

Maintenance and Repair Applications (Recover): — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 262 lbf.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants for the insulation and cover boards chosen.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

2. Uplift Resistance — 105 psf.

Deck: — Steel, min 22 MSG. New construction or reroofing over an existing UL Fire Classified roof assembly.

Air Seal: — Environmental Roofing Components 4-mil min thick reinforced polyethylene air barrier (not UL Classified) with end and lap seams overlapped min 6 in., and sealed with 2 in. wide pressure sensitive tape. The poly air barrier must be of sufficient size to wrap over the top of the insulation, a min of 6 in., around the entire perimeter and at penetrations, to be air sealed to the waterproofing membrane.

Insulation (Optional): — Any UL Fire Classified polyisocyanurate and/or 1/2 in. thick gypsum wallboard, with selected waterproofing membrane.

Barrier Board: — Oriented Strand Board (OSB), 7/16 in. thick min APA rated Sheathing 32/16.

Fasteners: — No. 14 self-drilling screws with 2 in. diam. galvanized steel washers. A total of ten fasteners per 4 by 8 ft. sheet positioned in three rows located at the centerline and 6 in. from each edge.

Maintenance and Repair Applications (Recover): — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 336 lbf.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

3. Uplift Resistance — 130 psf.

Deck: — Steel, min 22 MSG.

Air Seal: — Consists of an existing UL Classified BUR, with strips of 18 in. wide min 4 mil polyethylene, or strips of Environmental Roofing Components waterproofing membrane, adhered to the BUR at the entire perimeter with the appropriate adhesive or sealant. Air barrier should be bonded so as to permit wrapping over the top of the barrier board, a min of 6 in.

Insulation (Optional): — Any UL Fire Classified polyisocyanurate and/or 1/2 in. thick gypsum wallboard, with selected waterproofing membrane.

Barrier Board: — Oriented Strand Board (OSB), 7/16 in. thick min APA rated sheathing 32/16.

Maintenance and Repair Applications (Recover): — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 416 lbf.

Fasteners: — No. 12 self-drilling screws with 2 in. diam. galvanized steel washers. A total of ten fasteners per 4 by 8 ft. sheet positioned in three rows located at the centerline and 6 in. from each edge.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

4. Uplift Resistance — 150 psf.

Deck: — Concrete (pre-cast, panel, poured-in-place, lightweight concrete (LWC) cellular, vermiculite, perlite or gypsum). New construction or reroofing over an existing UL Classified roof assembly.

Perimeter Air Seal: — Consists of strips of 18 in. wide min 4 mil reinforced polyethylene, or strips of Environmental Roofing Components roof membrane, adhered to the concrete deck at the entire perimeter, with the appropriate adhesive or sealant. Air seal should be bonded so as to permit wrapping over the top of any insulation or barrier board, a min of 6 in.

Deck Air Seal: — Any joints or holes through the roof deck are sealed with Environmental Roofing Components field membrane strips or spray foam.

Insulation (Optional): — Any UL Fire Classified existing roof assembly or any UL Fire Classified polyisocyanurate and/or 1/2 in. thick gypsum wallboard, with selected waterproofing membrane.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

5. Uplift Resistance — 225 psf.

Deck: — Steel, min No. 22 MSG, side-lap and butt seams sealed with two component spray-applied foamed plastic.

Insulation: — Two component spray applied UL Fire Classified foamed plastic min 1 in. thick sprayed over Reinforced Fiberglass Mesh (not UL Classified) stretched across steel deck.

Slip Sheet (Optional): — Glass mat, paper or board type product loose laid or mechanically fastened.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Air Seal: — The perimeter and penetrations are air sealed with a mechanically fastened, picture frame of termination bars, consisting of a butyl rubber gasket (not UL Classified) with a nom 5/8 in. by 3/4 in. cross section and termination bars consisting of 1/2 in. wide, 6 ft. long extruded aluminum bars, with pre-punched holes 7 in. on center. The gasket is centered on the underside of the membrane on the substrate. A termination bar is fastened over the membrane to the deck with 1/4-13 steel screws, to air seal to the insulation and membrane, respectively.

Optional air seal termination consists of 6 in. strips of APA rated wood sheathing, 7/16 in. min, fastened 12 in. on center, and 3 in. min No. 22 GSG steel plates and #14 roof screws, instead of termination bars.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

6. Uplift Resistance — 120 psf.

Deck: — Min 15/32 in. APA rated plywood sheathing, 32/16.

Insulation: — Two component spray-applied UL Fire Classified foamed plastic insulation formed in two or more layers, min 1/2 in. thick each, with Reinforced Fiberglass Mesh (not UL Classified) laid over first layer.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Air Seal: — The perimeter and penetrations are sealed with a mechanically fastened, picture frame of termination bars, consisting of a butyl rubber gasket (not UL Classified) with a nom 5/8 in. by 3/4 in. cross section and termination bars consisting of 1/2 in. wide, 6 ft. long extruded aluminum bars, with pre-punched holes 7 in. on center. The gasket is centered on the underside of the membrane on the substrate. A termination bar is fastened over the membrane to the deck with 1/4-13 steel screws, to seal to the insulation and membrane, respectively.

Optional air seal termination consists of 6 in. strips of APA rated wood sheathing, 7/16 in. min, fastened 12 in. on center, and 3 in. min No. 22 GSG steel plates and #14 roof screws, instead of termination bars.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

7. Uplift Resistance — 195 psf.

Deck: — Min 7/16 in. APA rated sheathing, 32/16 (plywood, oriented strand board or wafer board). The 4 ft. wide sheathing is positioned with its longitudinal sides parallel to and centered over wood joists, spaced 2 ft. OC. Butt joints of adjacent sheets are to be staggered.

Fasteners: — Consists of 1/4-13 steel screws with 3 in. min diam. No. 22 GSG steel plates located in a row at the longitudinal seams of plywood sheets beginning 4 in. from each staggered butt seam and 20 in. OC in between plate and screw to hold adjacent sheets.

Another row of fasteners located at the longitudinal center line of each sheet 4 in. from each butt edge and 22 in. OC between.

Adhesive: — Environmental Roofing Components petroleum based exterior wood deck adhesive (not UL Classified) is used to adhere deck to joists and to seal all deck joints.

Insulation (Optional): — Any UL Fire Classified insulation, loose laid, mechanically fastened, or adhered.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Air Seal: — The perimeter and penetrations are sealed with a mechanically fastened, picture frame of termination bars, consisting of a butyl rubber gasket (not UL Classified) with a nom 5/8 in. by 3/4 in. cross section and termination bars consisting of 1/2 in. wide, 6 ft. long extruded aluminum bars, with pre-punched holes 7 in. on center. The gasket is centered on the underside of the membrane on the substrate. A termination bar is fastened over the membrane to the deck with 1/4-13 steel screws, to seal to the insulation and membrane, respectively.

Optional air seal termination consists of 6 in. strips of APA rated wood sheathing, 7/16 in. min, fastened 12 in. on center, and 3 in. min No. 22 GSG steel plates and #14 roof screws, instead of termination bars.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

8. Uplift Resistance — 225 psf.

Deck: — Concrete, gypsum, poured-in-place, pre-cast panels, and lightweight insulating concrete.

Deck Coating (Optional): — Any UL Fire Classified coating, a concrete primer, or UL Fire Classified polyester reinforced SBS modified bitumen membrane, torch-applied, hot-mopped, or cold mastic-applied to the top surface or an existing UL Classified membrane or spray foam assembly, applied to the roof deck.

Insulation (Optional): — Separator mats or slip sheets, or rigid roof insulation, any thickness, adhered, mechanically attached, or loose laid and weighted in place with 1/2 in. (min) thick gypsum board.

Air Seal: — Consists of 18 in. (min) wide strips of waterproofing field membrane, adhered or mechanically terminated to the roof deck, in a bead of air seal caulking or tape, with a continuous series of termination bar around the perimeter and penetrations, to stop lateral air infiltration into the roof assembly. The air seal strips are extended up through the roof assembly, and are attached to the underside of the field membrane.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane with specified adhesives and sealants.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

9. Uplift Resistance — 150 psf.

Deck: — Min 15/32 in. APA rated plywood or 7/16 in. APA rated OSB sheathing 32/16.

Air Seal: — Consists of sealing all the deck joints with a bead of ERC WV seam sealant "H" Clips are used on open plywood butt-joints between joists. The "H" clips are spaced on-center between joists.

Insulation (Optional): — Any UL Fire Classified rigid insulation, any thickness, existing roof assembly or 2001 separator or mats or slip sheets.

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane, with specified adhesives and sealants.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof, to transfer wind-generated vacuums to the air sealed substrate.

10. Uplift Resistance — 285 psf.

Deck: — Structural Concrete (poured in-place or pre-cast).

Deck Air Seal: — Perimeter roof deck to vertical wall joints, through-roof-deck penetrations and deck joints are air sealed with reinforced Environmental Roofing Components waterproofing membrane fully adhered to the roof deck and flashed on to the perimeter and through deck penetrations.

Vapor Barrier (Optional): — One or more layers of fully adhered UL Fire Classified Environmental Roofing Components membranes.

Insulation (Optional): — Any UL Classified rigid roof insulation, any thickness, tapered or flat stock, adhered, fully adhered, mechanically fastened or loose laid and weighted in place with a Cover Board (Weighted Cover Board).

Cover Board: — Minimum 1/2" inch minimum thick National Gypsum "PermaBase" or USG "Durock Exterior" cement boards. Also could be minimum 1/2" inch thick gypsum boards consisting of G-P Gypsum "DensDeck", USG "SECUROCK Glass Mat Board", or Certain Teed Gypsum "GlasRoc".

Membrane: — Any UL Fire Classified Environmental Roofing Components waterproofing membrane is loose laid or totally adhered to the Cover Board (Weighted Cover Board) with specified adhesives and sealants.

Membrane Air Seal Attachment: — The roof membrane is directly terminated (secured) to the concrete deck with air seal termination techniques using butyl gum tape and termination bars or structural "C" Channels fastened with concrete fasteners 6-in oc at perimeters and all roof through penetrations.

Perimeter and Penetrations: — Finish Flashed onto the air sealed field of the roof membrane using Environmental Roofing Components flashing techniques.

Pressure Relief Valve: — "ERC WV Valves", are installed around the building perimeter in the wind uplift vortex intensity zones of the roof according to the equalizer valve placement diagram. A 6-1/2 inch diameter hole is cut-out of the roof assembly down to the concrete deck under ERC WV Valves to transfer Wind Uplift pressure load through the roof assembly to the structural concrete deck.

11. Uplift Resistance — 285 psf.

Deck: — Structural Concrete (poured in-place or pre-cast).

Deck Air Seals: — Perimeter roof deck to vertical wall joints, through-roof-deck penetrations and deck joints are air sealed with reinforced EPDM, TPO or PVC or Modified Bitumen membranes (See **list under Membrane**) fully adhered to the roof deck and flashed on to the perimeter and through deck penetrations.

Existing Roof Permeation: — The existing roof systems are permeated by cutting through the membranes 2-ft o.c., by drilling a 1/2 inch diameter hole every 2 sq. ft. to allow water vapor to migrate out roof systems and up into the new ERC WV Drying, Re-roof System.

Gravel Mat (Optional): — Loose laid gravel mat (not UL Classified) and covered with the Cover Board.

Insulation (Optional): — Any UL Classified rigid roof insulation, any thickness, tapered or flat stock, adhered, fully adhered, mechanically fastened or loose laid and weighted in place with a Cover Board (Weighted Cover Board).

Cover Board: — Minimum 1/2 inch thick National Gypsum "PermaBase" or USG "Durock Exterior" cement boards. Also could be minimum 1/2 inch thick gypsum boards consisting of G-P Gypsum "DensDeck", USG "SECUROCK Glass Mat Board", or Certain Teed Gypsum "GlasRoc".

Membrane: — Loose Laid or totally adhered to the Cover Board (Weighted Cover Board) with specified adhesives and sealants.

Membrane Air Seal Attachment: — The roof membrane is directly terminated (secured) to the concrete deck with air seal termination techniques using butyl gum tape and termination bars or structural "C" Channels fastened with concrete fasteners 6-in o.c. at perimeters and all roof through penetrations.

Maintenance and Repair Applications (Recover): — The field withdrawal resistance testing of roof covers fasteners shall yield a minimum of 143 lbf.

Perimeter and Penetrations: — Finish Flashed onto the air sealed field of the roof membrane using Environmental Roofing Components flashing techniques.

Pressure Relief Valve: — "ERC WV Valves", are installed around the building perimeter in the wind uplift vortex intensity zones of the roof according to the equalizer valve placement diagram. A 6-1/2 inch diameter hole is cut-out of the roof assembly down to the concrete deck under ERC WV Valves to transfer Wind Uplift pressure load through the roof assembly to the structural concrete deck and to exhaust water vapor out of the existing wet roofs.

12. Uplift Resistance — 240 psf.

Deck: — Min. 19/32" APA rated plywood sheathing.

Primer: — SOPREMA INC "Elastocol Stick Zero", applied at 0.7 to 1 gal/sq.

Air Barrier: — SOPREMA INC "SOPRAVAP'R", self-adhered to primed wood deck.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply membrane, loose-laid; seams sealed in accordance with manufacturer requirements or any UL Classified modified bitumen membrane, loose-laid with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

13. Uplift Resistance — 210 psf.

Deck: — Min. 19/32" APA rated plywood sheathing.

Primer: — SOPREMA INC "Elastocol Stick Zero", applied at 0.7 to 1 gal/sq.

Air Barrier: — SOPREMA INC "SOPRAVAP'R", self-adhered to primed wood deck.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

14. Uplift Resistance — 240 psf.

Deck: — Min. 19/32" APA rated plywood sheathing.

Air Barrier or Existing Roof: — Any existing UL Classified, fully adhered, modified bitumen, or single-ply roof covering. For existing modified bitumen, granules or sand shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply membrane, loose-laid; seams sealed in accordance with manufacturer requirements or any UL Classified modified bitumen membrane, loose-laid with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

15. Uplift Resistance — 210 psf.

Deck: — Min. 19/32" APA rated plywood sheathing.

Air Barrier or Existing Roof: — Any existing UL Classified, fully adhered, modified bitumen, or single-ply roof covering. For existing modified bitumen, granules or sand shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous

bituminous surface for the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.²

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

16. Uplift Resistance — 255 psf.

Deck: — Steel, min. 22 MSG. Deck side-laps and perimeter to receive air seal are fitted with min. 6-in. wide, min. 26 MSG galvanized steel strips fastened with #10 pancake head sheet metal screws at 6-in. o.c., staggered edge to edge. Perimeter voids are sealed with UL Classified spray-foam.

Primer: — Soprema "ELASTOCOL Stick Zero", applied at 0.7 to 1 gal/sq.

Air Barrier: — Soprema "SOPRAVAP'R", self-adhered to primed steel deck. The roll length is parallel to steel deck flutes and overlaps are positioned atop the top flanges or galvanized steel strips to ensure positive contact.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply membrane, loose-laid; seams sealed in accordance with manufacturer requirements or any UL Classified modified bitumen membrane, loose-laid; with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. For applications atop the air seal which applied atop the galvanized steel strips, care shall be taken to ensure the fasteners engage the steel deck. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

17. Uplift Resistance — 210 psf.

Deck: — Steel, min. 22 MSG. Deck side-laps and perimeter to receive air seal are fitted with min. 6-in. wide, min. 26 MSG galvanized steel strips fastened with #10 pancake head sheet metal screws at 6-in. o.c., staggered edge to edge. Perimeter voids are sealed with UL Classified spray-foam.

Primer: — Soprema "ELASTOCOL Stick Zero", applied at 0.7 to 1 gal/sq.

Air Barrier: — Soprema "SOPRAVAP'R", self-adhered to primed steel deck. The roll length is parallel to steel deck flutes and overlaps are positioned atop the top flanges or galvanized steel strips to ensure positive contact.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trilaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. For applications atop the air seal which are applied atop the galvanized steel strips, care shall be taken to ensure the fasteners engage the steel deck. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

18. Uplift Resistance — 255 psf.

Deck: — Steel, min. 22 MSG.

Air Barrier or Existing Roof: — Any existing UL Classified, fully adhered, modified bitumen, or single-ply roof covering. For existing modified bitumen, granules or sand shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply membrane, loose-laid; seams sealed in accordance with manufacturer requirements or any UL Classified modified bitumen membrane, loose-laid; with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

19. Uplift Resistance — 210 psf.

Deck: — Steel, min. 22 MSG.

Air Barrier: — Any existing UL Classified, fully adhered, modified bitumen, or single-ply roof covering. For existing modified bitumen, granules or sand shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and #15 roofing screws through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

20. Uplift Resistance — 300 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply membrane, loose-laid; seams sealed in accordance with manufacturer requirements or any UL Classified modified bitumen membrane, loose-laid; with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Rope (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

21. Uplift Resistance — 210 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Primer: — Perimeter air seal target locations cleaned with acetone and primed with "FTR-190e Bonding Adhesive", roller applied.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

22. Uplift Resistance — 210 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Rope (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

23. Uplift Resistance — 255 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Air Barrier or Existing Roof: — For New Construction or Re-Roof (Tear-Off): Any UL Classified, smooth-surfaced, torch-grade, SBS modified bitumen membrane, torch-applied. The film-surface shall be melted away, or the sand-surface shall be embedded within the bitumen, using a torch prior to placement of the perimeter air seal.

For Recover: Existing, UL Classified, fully adhered, modified bitumen or single-ply roof cover. For existing modified bitumen, granules or sand (if present) shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for, the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply, loose-laid; seams sealed in accordance with membrane manufacturer requirements or any UL Classified modified bitumen, loose-laid, with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

24. Uplift Resistance — 210 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Air Barrier or Existing Roof: — For New Construction or Re-Roof (Tear-Off): Any UL Classified, smooth-surfaced, torch-grade, SBS modified bitumen membrane, torch-applied. The film-surface shall be melted away, or the sand-surface shall be embedded within the bitumen, using a torch prior to placement of the perimeter air seal.

For Recover: Existing, UL Classified, fully adhered, modified bitumen or single-ply roof cover. For existing modified bitumen, granules or sand (if present) shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for, the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Reinforcement: — Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, applied with 6-in. wide side laps, sealed with Everest Systems "Evercoat EC Base". The lap-edge is further sealed using a 4-in. wide strip of Low & Bonar "EnkaSonic by Colbond" trillaminate reinforcing scrim, centered atop the lap edge and applied in a base coat/saturation coat application of Everest Systems "Evercoat EC Base".

Base Coat: — Everest Systems "Evercoat EC Base", applied at 1-gal/100-ft.².

Top Coat: — Everest Systems "SILKOXY EZ", applied at 1-gal/100-ft.².

Air Seal: — The perimeter and penetrations are sealed with ERC Butyl Air Seal Tape (not UL Classified) applied atop the air barrier, followed by the membrane, mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-in. o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

25. Uplift Resistance — 300 psf.

Deck: — Concrete (pre-cast, panel, or poured-in-place). Any joints or voids are sealed with UL Classified spray-foam.

Existing Roof: — Existing, UL Classified, fully adhered, modified bitumen or single-ply roof cover. For existing modified bitumen, granules or sand (if present) shall be embedded within the bitumen using a torch prior to placement of, and creating a smooth, continuous bituminous surface for the perimeter air seal.

Insulation: — One or more layers, min. 1-in. thick UL Classified rigid board insulation and/or min. 0.5-in. UL Classified gypsum coverboard, loose-laid.

Membrane: — Any UL Classified single-ply, loose-laid; seams sealed in accordance with membrane manufacturer requirements or any UL Classified modified bitumen, loose-laid, with seams heat welded or torch-sealed.

Air Seal: — The perimeter and penetrations first cleared of existing roofing materials and cleaned to receive the perimeter air seal. The prepared surfaces are then sealed with ERC Butyl Air Seal Rope applied atop the deck, followed by the membrane, which is mechanically fastened atop the perimeter air seal locations using 0.09-in. thick x 0.75-in. wide extruded aluminum (6063 T6) termination bar with a 3/16-in. lip formed at a 45° angle and 1/4-in. diameter concrete fasteners through pre-punched holes spaced 6-inch o.c. Flash termination bar with strips of like membrane.

Pressure Relief Valve: — "ERC WV Valves", placed in the wind uplift vortex intensity zones of the roof to transfer wind-generated vacuums to the air sealed substrate.

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