

EVrliner^{FP}

Energy-Efficient Metal Building Insulation

Product
Brochure



**DURABLE PROTECTION THAT
NEVER FALLS THROUGH**



**DISTRIBUTION
INTERNATIONAL**

Energy-Efficient Metal Building Insulation

EVRliner FP is Distribution International's exclusive high R-Value insulation system. This OSHA-compliant leading edge fall protection system* is used in roof and wall applications of metal buildings and other commercial construction. The EVRliner FP system provides our customers with a solution to meet energy code requirements while providing safety to rooftop workers.

* When installed by a DI certified contractor, the EVRliner FP system provides OSHA-compliant leading edge fall protection. See DI's contractor agreement for details and product limitations.



EVRliner™ FP

Efficiency, Value, and Reliability.

Leading Edge Fall Protection: OSHA-compliant leading edge fall protection keeps your erection crew safe while the building is being insulated and roofed. The EVRliner FP system meets fall protection requirements as presented in Title 5 CFR 1926.502(c) – restraining and supporting a minimum of 400 pounds dropped from a height of at least 42" above the walk surface.

Thermal Performance: When properly installed, the EVRliner FP system allows for maximum fiberglass thermal recovery. This is ideal for metal buildings and other applications requiring optimal thermal performance to meet today's strict building and energy code requirements.

Fire Performance: Fiberglass insulation and EVRliner FP fabric have a specified FHC rating of 25/50 flame spread and smoke developed rating per UL 723/ASTM E84.

Attractive, Durable Interior: The EVRliner FP fabric provides a long-lasting finished surface and a smooth, bright interior. The strength of the fabric is instrumental in preventing tears and isolating secondary structural supports. Additionally, it provides a barrier to minimize air leakage and greatly improves acoustical performance.

Condensation Control: The EVRliner FP fabric's 0.02 perm rating, when combined with the included high R-Value fiberglass insulation, provides necessary thermal isolation to help prevent condensation. There are minimal penetrations and the system provides a seamless appearance compared to traditional faced blanket.

Strong, Straight Welds: Laser aligned fabric assures smooth, straight seams. The aligned fabric is welded under vacuum pressure, heated using precision controlled hot air and compression sealed, creating seams stronger than the fabric itself.

Reliability: DI's quality control ensures your safety by testing welded EVRliner FP fabric from the production line daily. Only samples showing a seam strength of more than double the tested failure strength meet our standards for use in an EVRliner FP system.

All-In-One System: EVRliner FP systems include a full line of accessories, which are the only approved accessories for use with this system, for both roof and walls.

Warranty: We offer a 10 year limited warranty on the EVRliner FP system.*

*See limited warranty for full details

ROOF AND WALL INSULATION SYSTEMS

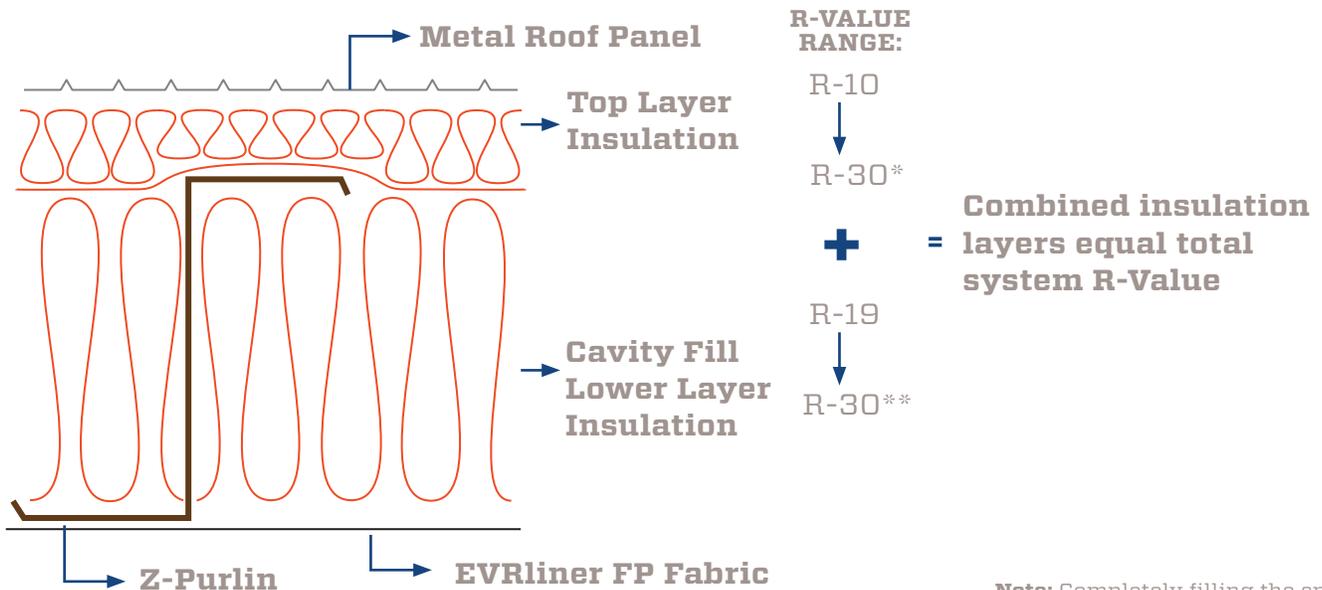
Roof System: The EVRliner FP system is an insulation liner support system consisting of a grid of support straps made of galvanized steel banding, white support fabric, and fiberglass thermal blanket insulation. The EVRliner FP fabric is custom-fabricated to fit each specific bay within the building. High R-values can be achieved by filling the purlin depth with an uncompressed lower layer of blanket insulation and isolating the purlin-to-roof connection with a second layer of insulation placed cross-purlin. Combined insulation thickness and total system R-value can be customized to meet the exact requirements of your project.

To avoid air gaps and possible condensation after building construction, every

effort should be made to completely fill the purlin and girt cavities between the fabric and outer metal panels, plus 1". While two layers of fiberglass insulation is recommended, if only a single layer is used, a foam thermal break between the purlin and roof sheet is recommended. In the event that there is no insulation positioned between the roof sheet and purlin, a foam thermal break tape (1/4" x 3"), or a thermal block (1" x 3" extruded polystyrene with an R-value of R-3.5 to R-5) should be applied. The EVRliner FP system is low maintenance and provides excellent condensation control. It is not recommended for high humidity applications¹. The system should never be used in buildings housing open sources of water such as pools.

¹Typically defined as 30% intermittent RH or greater.

ROOF SYSTEM R-VALUES (PRE-INSTALLED)



* Top layer R-Value dependent on manufacturer's standing seam clip size
 ** 12" purlins require 3 layers, 2 within purlin cavity and 1 over the purlins

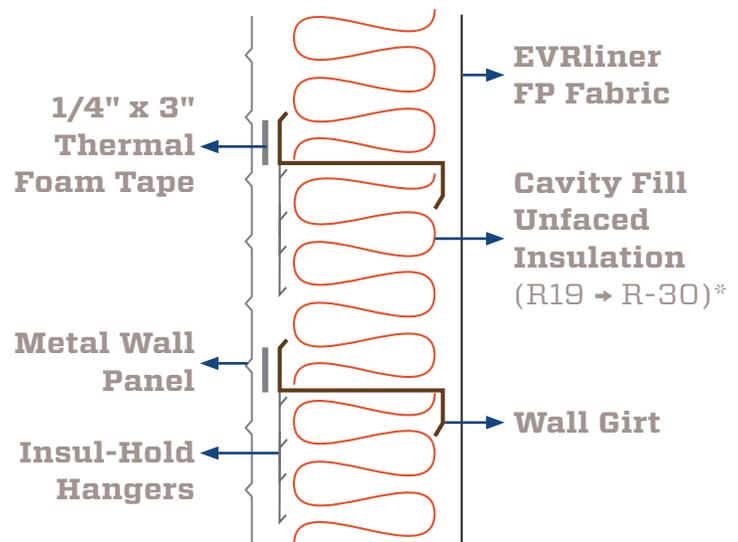
Note: Completely filling the space between the outer metal panel and EVRliner FP fabric will help to prevent condensation.

WALL SYSTEM

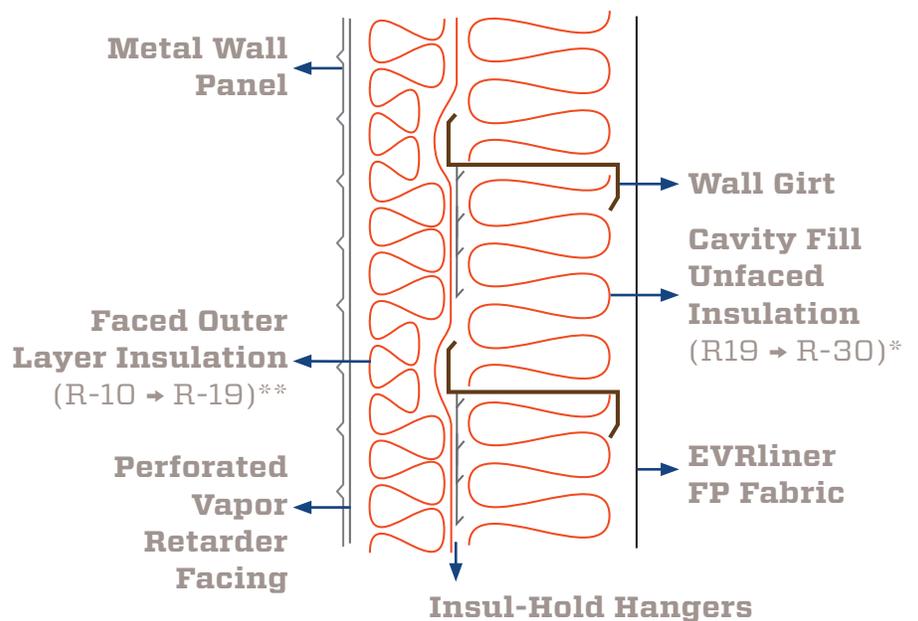
EVRLiner FP limits conductance between metal wall panels and girts in wall applications. In a single layer system, the use of 1/4" x 3" thermal foam tape is required. In a two layer system, the outer layer of fiberglass serves as a thermal break.



SINGLE LAYER WALL OPTION:



DOUBLE LAYER WALL OPTION:



*R-Values are Pre-Installed

** Dependent on manufacturer's wall system and fasteners

Note: Combined outer and cavity fill insulation layers equal total system R-value.

EVRLINER™ FP SYSTEM SPECIFICATIONS

The EVRliner FP System is designed by the manufacturer, Distribution International, as a complete system and shall consist of:

ROOF: Pre-installed R-value of ___ with an installed thickness of ___" or greater. Installed U-value will be ___ per (use your state's applicable energy code). Roof system must be single, double or triple (choose one) layer system.

WALLS: Pre-installed R-value of ___ with an installed thickness of ___" or greater. Installed U-value will be ___ per (use your state's applicable energy code). Wall system must be a single or double (choose one) layer system.

SYSTEM COMPONENT MINIMUM SPECIFICATIONS:

Fabric: Made of reinforced high-density polyethylene (HDPE) yarns, this material is manufactured in custom pieces by hot air welding from roll goods. The pieces are fabricated to fit large building areas and require minimal sealing on-site. The fabric is easily deployed as it is folded or rolled for pullout on the strap support system. EVRliner FP fabric can be cleaned by hand with a mild dish detergent only. Do not use chemical cleaners or power wash.

White is the standard color, but additional colors are available by order. Speak to a representative for availability and delivery details.

- **Fasteners:** All fasteners shall be colored to match fabric and banding color. For light gauge steel, up to 1/4" thick (commonly purlins and girts), use TY3 3/4" self-drilling fasteners with 3/4" OD washers (12-14). For heavier gauge steel, up to 3/8" thick (commonly primary framing), use TY5 1 1/4" self-drilling fasteners (12-24).
- **Insulation:** Must meet ASTM C991, type 1 (unfaced) and ASTM E136. Blanket rating must be FHC 25/50 with a flame spread of 25 or less and a smoke-developed rating of 50 or less to meet the ASTM E84 standard. DI may recommend and submit other insulation types for approval by an architect.

R-value will vary per description above.

- **Insulation Hangers:** For walls, use Insul-Hold coils for supporting insulation between wall girts at frequency specified in DI installation instructions.
- **Sealants:** For sealing EVRliner FP fabric laps and edges, use quick strength solvent-based brush adhesive. Two-sided tape may be substituted for brush adhesive only if approved by DI.
- **Steel Strap:** Minimum shall be cold rolled, hot dipped galvanized structural steel, grade 60 (ASTM A653SS), zinc coated, primed and painted for corrosion resistance, .022" nominal thickness, 1" wide x continuous length.

Coating Thickness	2.0 mil/1.25 mil average (47/29 g/m ² /side)
Total Thickness	Nominal 9.0 Mils (ASTM D177)
Weight	4.4 oz./sq. yd. (+/- 5%)
Grab Tensile Strength	130 lbs. warp x 115 lbs. weft (ASTM D5034)
Tongue Tear Strength	50 lbs. warp x 45 lbs. weft (ASTM D2261)
Moisture Vapor Transmission	0.02 perms (ASTM E96)
Mullen Burst	235 psi (ASTM D3786)
Puncture Resistance	65 lbs. (ASTM D4833)
Light Reflectance	81% (ASTM E1477)
Surface Burning Characteristics	Flame Spread: 0 Smoke-Developed: 28 (white side exposed) UL723 (ASTM E84)
Flame Assistance	Pass (NFPA 701)
Sound Absorption	NRC Rating 0.70 (ASTM C423 - 02a)
Accelerated UV Weathering	UV stabilizers added for extra protection >50% Strength retention after 2000 hrs. (ASTM G154)
Thermal Stability	20°F and 150°F No cracks or delamination (ASTM C1263)
Fungi Resistance	No growth, (ATCC #'s 9642, 6205, 11797, 11730 and 9643) (ASTM C1336)

Note: These are typical property values and are intended as guides only. These figures listed do not represent specification limits. Above specifications are for white EVRLiner FP fabric. Specifications for black EVRLiner FP fabric are available upon request.

ACCESSORIES

- Unfaced fiberglass insulation in custom cut widths to fit purlin spacing in roof and standard width insulation for walls
- 1" wide x 500' long galvanized steel banding to support system's fabric and unfaced insulation
- Brush adhesive and disposable application brushes
- 12-14 TY3 3/4" self-drilling fasteners with 3/4" OD washers (to connect banding to secondary framing) and 12-24 TY5 1 1/4" self-drilling fasteners (to connect banding to primary framing)
- 3" wide patch tape (same material as fabric) to conceal/repair small punctures
- Wall accessories to include Insul-Hold coils (to support insulation vertically within the girt cavity), 1/4" thick x 3" wide thermal foam tape (to isolate exterior wall panels from girts) and two sided tape (to secure fabric to steel framing)

CONSISTENT AND TIGHT

Minimizing cuts to the EVRliner FP fabric will help to create a consistent vapor retarder. Using common construction hangers to attach lights, sprinklers, ductwork, etc. to the underside of the purlins will minimize penetrations.



FLANGE BRACE ATTACHMENT

In an effort to minimize fabric penetrations, modified flange attachments may be used. Flange brace/purlin connection should not be modified without approval from the building manufacturer or a licensed, qualified engineer. Most manufacturers can provide modified brace attachments.



ABOUT DISTRIBUTION INTERNATIONAL

Distribution International (DI) is a leading manufacturer and supplier of laminated metal building insulation and customized high R-value systems available through our national distribution footprint. We work closely with architects, contractors, and erectors to provide custom insulation solutions for your construction projects.

We deliver excellence by partnering with industry leading manufacturers to bring exceptional product knowledge and reliable in-stock availability.



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