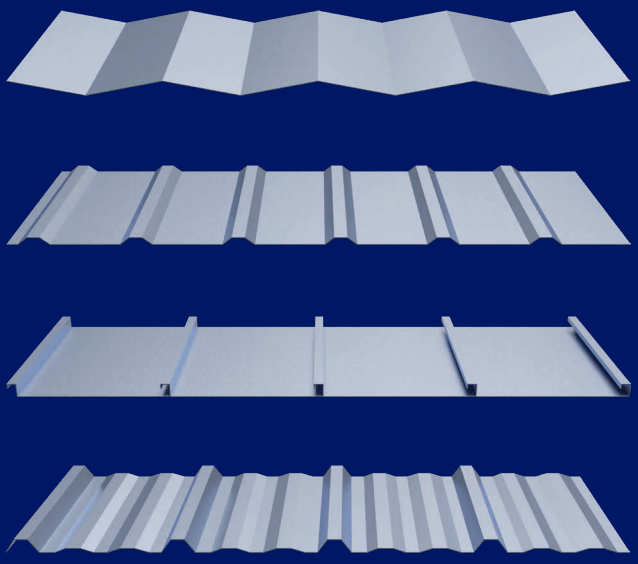
Estimating Guide for Metal Roofs

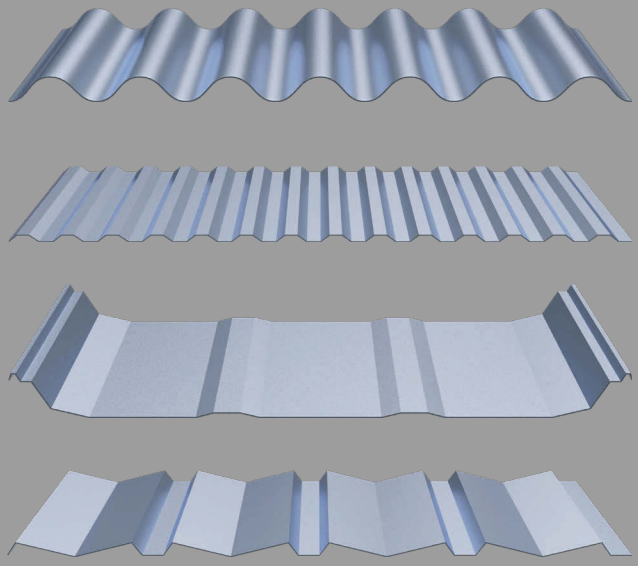
Liquid-Applied Roof Membranes

NOTE: Actual roof surface area is based on metal roof profile. Match the job site roof profile to the sample cross sections below to determine the multiplication factor required to determine actual roof surface area.

Multiply roof surface area by 1.2 for the following roof profiles:



Multiply roof surface area by 1.3 for the following roof profiles:



SURFACE PREPARATION

All mechanical fasteners shall be checked for integrity. Retighten or replace as necessary. “Stripped out” fasteners shall be replaced using a larger diameter fastener. Unsound rust shall be wire brushed, sandblasted or mechanically abraded to remove all loose rust. Metal panels deteriorated to the point that their structural integrity is compromised shall be replaced. Check all seams to ensure that they are tight and flush. Excessive gaps or deflections between panels shall be eliminated by installing additional screws or rivets as necessary to restrict deflection to ¼" (6 mm) or less. All metal surfaces shall be pressure washed to remove contaminants, along with any existing loose paint or coating.

PRIMER

All existing "sound" rusted areas shall be primed with PolyBrite 74 Rust Inhibitor Primer at the approximate rate of 100 sq. ft. per gallon.

Take the calculated square footage and divide by 100. This will equal the total amount of gallons required.

Medium to heavy rust areas must be coated at least twice.

SEAMS

Fill gaps between ¼" and ⅛" at panel seams, joints and protrusion with PolyBrite 73 elastomeric mastic. At this thickness you should be able to treat 75 lineal feet per gallon of material.

Divide the total lineal feet of gaps by 75 to get gallons required.

All horizontal (end-lap) seams and vertical (side-lap) seams that have not been factory crimped or pre-sealed, roof terminations and flashings, around drains, scuppers and skylights, and base of all vents, conduits, HVAC equipment and other protrusions shall be reinforced using one or more of the following methods:

A. Apply base coat of PolyBrite 70 liberally, using brush or roller, along the area to be detailed. While still wet, embed a strip of 12" polyester mesh as per detail requirements, centered over the seam, joint or interface. Work the mesh into the elastomer applying additional material as necessary to totally encapsulate the reinforcing fabric. This option will require 1 gallon for every 30 square feet.

i. Divide the total lineal feet of flashing needed by 30 to get total gallons.

B. Apply PolyBrite 73 elastomeric mastic at a thickness of 60 to 80 dry mils over the detail area. Extend the sealant a minimum of 2" on either side of seams, joints and interfaces. Sealant must be applied in 2 coats. This is achieved at approximately 25 square feet per gallon. Figure that every gallon will provide material for 50 lineal feet

i. Divide the total lineal feet of flashing needed by 50 to get total gallons.

C. Apply PolyBrite 77 SEBS Flashing Cement at a rate of 1.5 gallons per 100 sq. ft., 24 wet mils (.6 l/m²). Extend the sealant a minimum of 2" on either side of seams, joints and interfaces. Once dry, a second coat must be applied at the same rate as the first. Figure that every gallon will provide material for 70 lineal feet.

i. Divide the total lineal feet of flashing needed by 70 to get total gallons.

At the interface of any metal with a dissimilar material, detail the joint using one of the following methods:

A. Apply 6" Polyester Mesh embedded into the base coat of PolyBrite 70 as previously described in the previous section.

B. Apply PolyBrite 73 elastomeric mastic or PolyBrite 77 as previously described. All mechanical fastener heads shall be treated by applying PolyBrite 77 SEBS Flashing Cement to completely encapsulate the screw head and seal the base of the fastener to the metal deck.

FIELD APPLICATION

All roof preparation materials shall be allowed to fully dry prior to full roof surface application of the elastomeric coating. The entire roof substrate shall receive elastomeric coating applied as follows:

For a 10 year warranty, apply a base coat of PolyBrite 70 at a minimum rate of 1.25 gallons per 100 sq. ft., 20 wet mils (0.5 l/m²). After allowing the base coat to dry, apply one (1) coat of PolyBrite 70 at a minimum rate of 1.25 gallons per 100 sq. ft., 20 wet mils (0.5 l/m²). Use a medium-nap roller or airless spray to apply the elastomeric coating. Apply consecutive coats in a perpendicular direction to the previous coat. Total dry mil thickness (DMT) to be a minimum of 20 mils. Total material required is 2.5 gallons per 100 sq. ft.

Apply additional coats of PolyBrite 70 to achieve longer warranty terms:

15 year: 2 coats @ 1.50 gallons per 100 sq. ft. 24 DMT.

Total material required is 3 gallons per 100 sq. ft.

20 year: 3 coats @ 1.25 gallons per 100 sq. ft. 30 DMT.

Total material required is 3.75 gallons per 100 sq. ft.

NOTE: Costs for Systems Warranties are as follows:

10 year – $0.05 per square foot ($750 minimum)

15 year – $0.07 per square foot ($1,200 minimum)

20 year – $0.09 per square foot ($1,800 minimum)

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