

Product Evaluation

EC78 | 0819

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: EC-78

Effective Date: August 1, 2019

Re-evaluation Date: August 2023

Product Name: ACM Wet Composite (MetalBond 100 Series) Wall Panel System

Manufacturer: Byrne Metals, Corporation
848 South Houston Avenue
Humble, TX 77338
(281) 354-1100

General Description:

The ACM Wet Composite (MetalBond 100 Series) wall panel system consists of two 0.5mm thick 3105 H14 aluminum skins thermally bonded to a thermoplastic core for a total thickness of 4mm. Extruded aluminum framing is attached to the ACM around the perimeter of each panel and intermediate steel stiffeners are attached to the interior aluminum skin.

Limitations:

Wall Framing: The wall panels must be installed over minimum 16-gauge steel framing.

New Wall Framing Attachment: The wall framing must meet or exceed the requirements of the IRC or IBC and must be installed as required for resistance to wind loads.

Design Pressure: The design pressure load resistance must be as specified in Table 1. The design pressures are based on a panel deflection equal to L/60.

Table 1. Design Pressures

Design Wind Pressure (psf)	Panel Coverage (Height x Length)	Panel Stiffener Spacing (inches)	Horizontal Reveal Fastener Spacing (inches)	Vertical Reveal Fastener Spacing (inches)	Steel Framing Spacing (inches)
+15.8; -18.3	2'-6" x 10'-0"	N/A	12	N/A	30
+60.0; -40.0	5'-0" x 10'-0"	30	12	30	30
+60.0; -50.0	5'-0" x 10'-0"	24	12	30	30

Installation:

General: The ACM Wet Composite (MetalBond 100 Series) wall panel system must be installed in accordance with the manufacturer’s recommended installation instructions and this evaluation report.

Panel Perimeter Framing: The panels are routed and bent down to create a return flange. The flange is attached to a 6063-T5 aluminum extrusion with one (1) No. 10-16 x 1" Pancake SD spaced at 8" on center.

Panel Stiffeners: The panel stiffeners are SG-1 16-gauge steel hats attached to the panel interior skin with 3M VHB double stick tape. Refer to Table 1 for the spacing.

Attachment of Wall Panels to the Steel Framing: The panel perimeter is attached to minimum 16-gauge steel framing with one (1) 1/4" x 1" HWH SD fastener. Refer to Table 1 for the spacing.

Panel Reveal: The panels have 1/2" horizontal and vertical panel reveals. The panel reveals are filled with 7/8" diameter backer rod and DOW 795 silicone sealant.

Note: Keep the manufacturer’s installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.