

Product Evaluation

EC127 | 1121

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-127

Effective Date: November 1, 2021

Re-evaluation Date: October 2025

Product Name: KS Series Insulated Steel Wall Panels Installed over Steel Girts

Manufacturer: Kingspan Insulated Panels, Inc.
726 Summerhill Drive
Deland, FL 32724
(386) 626-6789

General Description:

This evaluation report is for KS Series Insulated steel wall panels installed over steel girts. The factory assembled Insulated metal panels consist of roll-formed interior and exterior profiles chemically bonded to a continuously, foamed-in-place, polyisocyanurate or Quadcore insulating core. The exterior or 'Facer' and interior or 'Liner' profiles are minimum 26-gauge steel conforming to ASTM A792, SS Grade 33 with an AZ 50 or AZ55 aluminum zinc alloy coating or ASTM A653, SS Grade 33 with G90 coating. The maximum panel width is 42" and can be fabricated for thickness of 2", 2.5", 3", 4", 5", and 6". Each panel features an interlocking double tongue-in-groove joint, which allows for panels to be engage side by side as well as for placement of a concealed clip and fastener. The panels are offered in ten styles or types: 'Shadowline', 'Azteco®', 'Granitstone® flat', 'Granitstone®', Flat 'Micro-Rib', 'Mini-Wave', 'Mini Micro-Rib' or 'Micro-Rib', Vektra, and Optimo profiles with embossed, smooth, or coated finish. The panels are anchored to supports with clips and screws.

Limitations:

Wall Framing: The insulated metal wall panels must be installed over open steel girts. The girts must be minimum 14-gauge steel.

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

Design Wind Pressures: The design pressure load resistance must be as specified in Table 1.

Table 1: Attachment of Minimum 2" Thick KS Series Panels to Steel Girts

Steel Girts Minimum 14-gauge	Design Wind Pressure (psf)	
	Inward Pressure	Outward Pressure
4'-0" on center	70.0	-90.0
4'-6" on center	67.1	-80.0
5'-0" on center	64.2	-72.0
5'-6" on center	61.3	-65.5
6'-0" on center	58.3	-60.0
6'-6" on center	53.8	-55.4
7'-0" on center	50.0	-51.4
7'-6" on center	46.7	-48.0
8'-0" on center	43.8	-45.0
8'-6" on center	41.2	-42.4
9'-0" on center	38.9	-40.0
9'-6" on center	36.8	-37.9
10'-0" on center	35.0	-35.0

Installation:

General: The insulated metal wall panels must be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Steel Girts: The minimum thickness of the steel and the maximum on center spacing of girts must be as specified in Table 1.

Attachment of Insulated Metal Wall Panels to the Steel Girts: Secure each panel at the joints to the steel girts with 12-gauge hidden stainless steel clips. The clips are 2-1/4" long x 3/4" wide and have 2 pre-punched holes. Secure each clip to the steel girts with two (2) 1/4"-14 HWH TEK3 self-drilling screws with varying length for different panel thickness. Fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread through the girts. A clip is required at each girt location.

In addition to the panel clips, secure the interior skin of the panel to the steel girts with Fab-Lok[®] FAS/FAC 10-4, 10-8, or 10-12 expansion fasteners. Space the expansion fasteners across the width of the panel spaced a maximum of 8.4" on center.

Trims, Closures, and Accessories: Install components, such as trims, closures, and accessories as required by the manufacturer.

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