Kingspan Insulated Panels, Inc.
Design No. KIP/IMWP 30-07
Insulated Metal Wall Panels
K-ROC KARRIER PANELS
NFPA 285
Rating: Meets Conditions of Acceptance

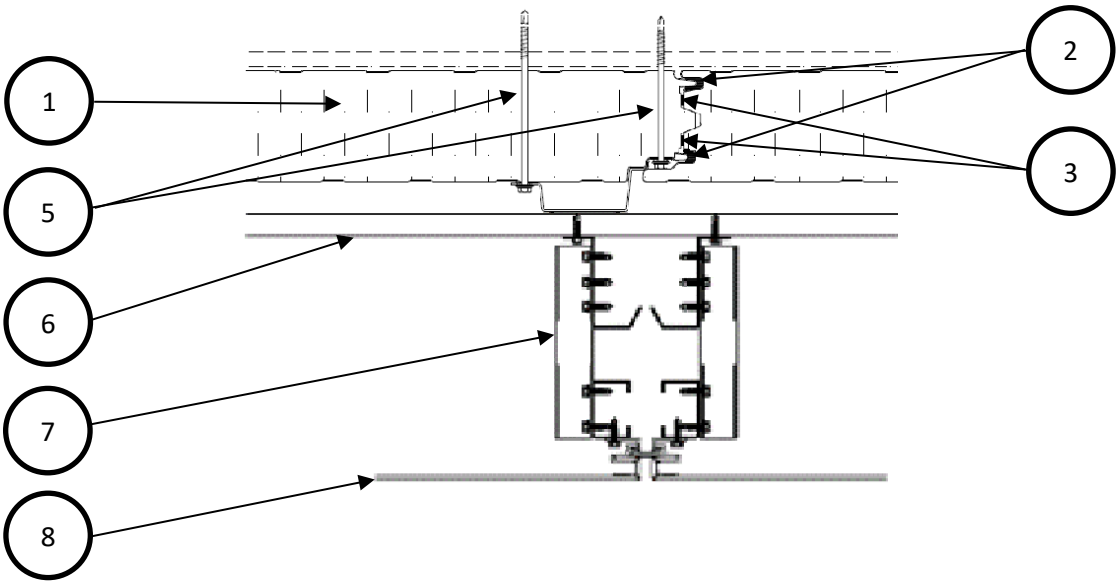

FIG 1. Vertical Joint

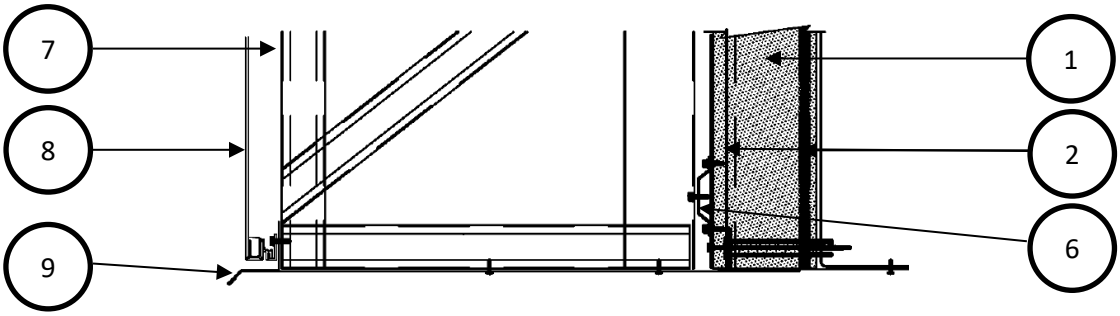

FIG 2. Cross Section at Window Header

1. **COMPONENT NAME:** Insulated Metal Wall Panels

   CERTIFIED PRODUCT: Kingspan Insulated Panels, Inc. Insulated Metal Wall Panels – K-Roc Karrier Panels

   Horizontally or vertically oriented, 42 in. wide × 4 in., 6 in., or 8 in. thick insulated metal panels, installed to the exterior side of steel framing. Interior and exterior panel facings are min. 26 GA galvanized, galvalume, or stainless steel. The panel core is noncombustible mineral wool.

2. **SEALANT:** Apply 1/4 in. bead of non-skinning butyl sealant on the interior and exterior tongue and groove interlocks.

3. **INTUMESCENT:** Apply beads of Kingspan's Safire Intumescent Mastic in the interlocking joints of each panel prior to joining the panels. Use two beads for 4 in. thick panels and three beads for 6 in. or 8 in. thick panels.

4. **KARRIERRAILS:** Install the min. 16 GA galvanized steel KarrierRails at each exterior tongue and groove interlock joint. KarrierRails create a clearance of 0 in. to 1 in. from the exterior face of the panel for the purpose of attaching exterior cladding systems.

5. **FASTENERS:** Fix the K-Roc (Karrier) Panels (and KarrierRails) to the steel framing using nominal 1/4 in. diameter or No. 14 fasteners driven through the (KarrierRails and) K-Roc (Karrier) Panels.

6. **HAT CHANNELS:** Install the 20 GA, 7/8 in. hat channels perpendicular to the KarrierRails. Space hat channels max. 24 in. on center (oc) and secure to the KarrierRail using 1 in. long, nominal 1/4 in. diameter or No. 14 fasteners.

7. **TRUSSES:** Fasten the 24 in. deep steel truss assemblies to the hat channels using 1 in. long nominal 1/4 in. diameter or No. 14 fasteners.

8. **METAL COMPOSITE MATERIAL (MCM):** Install a system of 4 mm FR aluminum composite panels by Alucoil and Carter Architectural Panels Inc. EVO aluminum extrusion pieces onto the trusses, creating a max. airspace of 25-1/8 in. between the aluminum fastening system and the KarrierRails. Alternatively, the MCM may be attached to the hat channels using EVO aluminum extrusion pieces and a min. airspace of 1 in. between the aluminum fastening system and the KarrierRails. Use only 4 mm FR aluminum composite panels by Alucoil bearing an Intertek Certified Label. The structural design and attachments are outside of the scope of this design listing and are the responsibility of the responsible design professional.

9. **TRIM AND WINDOW FLASHING:** Install 26 GA steel trim at the window, top and bottom of the assembly, and at the side sides of the outermost trusses to completely encase the space between the MCM or exterior cladding and the KarrierRails. Use 26 GA steel trim to extend the sides of the window opening to the front face of the MCM or exterior cladding.

10. **EXTERIOR CLADDING (Optional, Not Shown):** The structural design and attachments of exterior cladding systems are outside of the scope of this design listing and are the responsibility of the responsible design professional. As an alternative to Items 6, 7, and 8, install any of the following noncombustible cladding systems to the KarrierRails with an air space up to 25-1/8 in., in accordance with the requirements below:

A. THIN BRICK (Tru-Brix) – Install nominal 1 in. thick Tru-Brix into steel brick holding trays according to manufacturer's instructions.
B. PORCELAIN TILE – Install porcelain tile by Shackerley Ceramic Granite Tile using noncombustible materials according to manufacturer's instructions.
C. ALUMINUM METAL PLATE – Install min. 1/8 in. thick aluminum metal plate using noncombustible materials according to manufacturer's instructions.
D. ARCHITECTURAL METAL PLATE – Install min. 0.08 in. thick aluminum architectural metal plate using noncombustible materials and according to manufacturer's instructions.
E. SINGLE SKIN PROFILES – Install min. 24 GA galvalume, galvanized, stainless-steel, or aluminum profiles using noncombustible materials according to manufacturer's instructions.
F. EXTRUDED PLANK – Install min. 0.118 in. thick AA6063-T6 extruded planks using noncombustible materials according to manufacturer's instructions.
G. EXPANDED ALUMINUM MESH – Install expanded aluminum mesh using noncombustible materials according to manufacturer's instructions.
H. DESIGNWALL 3000 – Install min. 1-1/4 in. thick Designwall 3000 panels using noncombustible materials according to manufacturer's instructions. When using Designwall 3000 with aluminum skins, the truss assemblies (Item 7) are required, and the airspace must be 25-1/8 in.
I. HARDIE PLANK® SIDING PANEL – Install 5/16 in. thick Hardie Plank® Panel using noncombustible materials according to manufacturer's instructions.
J. OTHER NONCOMBUSTIBLE EXTERIOR CLADDING SYSTEMS – Use only cladding systems compliant with the applicable Building Code or regulatory requirements, and compatible with installation to the KarrierRails. The cladding system shall only be fastened to the KarrierRails in accordance with the exterior cladding manufacturer's installation instructions and shall comply with the design requirements of the responsible design professional.

11. **FLOORLINE FIRESTOPPING (Not Shown):** Use min. 4 pounds per cubic foot (pcf) mineral wool in each stud cavity at each floorline, attached with Z-clips or equivalent.

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.