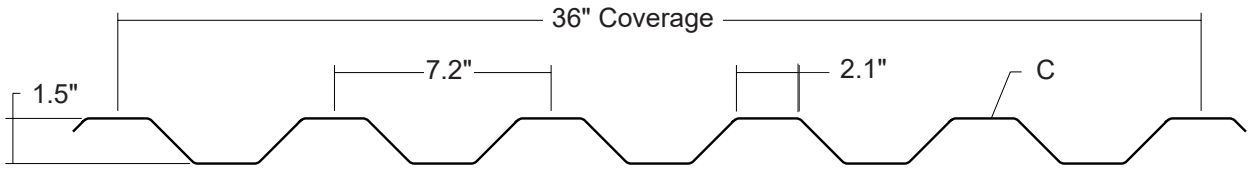
IC72-PANEL ROOF

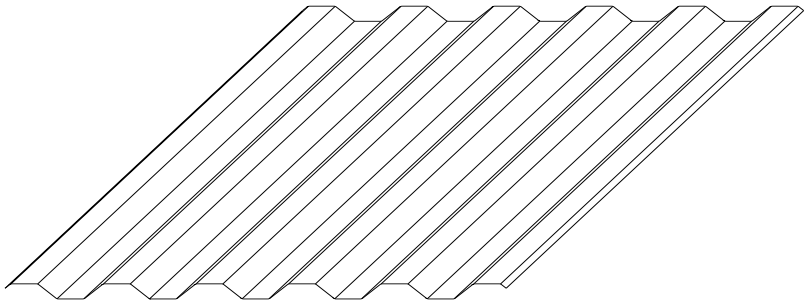
Condensed Technical Reference



ARCHITECTURAL COMMERCIAL INDUSTRIAL PANEL | **EXPOSED FASTENED** | **36" COVERAGE** | **MINIMUM SLOPE 1:12** | **OPEN FRAMING OR SOLID SUBSTRATE**

PANEL OVERVIEW

- Finishes: Standard:PVDF and Acrylic-Coated Galvalume®
  Optional: MS Colorfast45®
- Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®
  AZ50 per ASTM A 792 for painted Galvalume®
  G90 per ASTM A 653 for Galvanized
- Gauges: 24 ga standard; 26 ga, 22 ga, 20 ga and 18 ga optional
- 36" panel coverage, 1½" rib height
- Panel Length: Minimum: 5'; Maximum: 45' recommended
- Applies over open framing or solid substrate
- Exposed fastened panel
- Minimum roof slope: 1:12
- Trapezoidal ribs on 7.2" centers
- Optional material: Aluminum



TESTING AND APPROVALS

- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- ASTM E 283 Air Leakage - 0.0148 cfm/ft² at 12 psf *
- ASTM E 331 Water Penetration - none at 6.24 psf*
- ASTM E 1680 Air Leakage - 0.0002 cfm/ft² at 12 psf*
- ASTM E 1646 Water Penetration - none at 12 psf*
- ASTM E 1592 Structural Performance
- UL 580 Uplift Resistance - Class 90 Constructions: #137, 244
- ASTM E 455 Diaphragm Testing
- ICC Evaluation Report - ESR-2385

* uses Tape Sealant and Stitch Screws 1' oc in Side Lap

MS Metal Sales™

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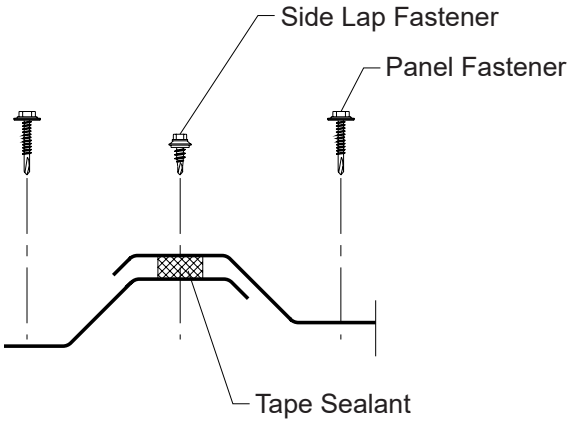
ATTACHMENT DETAIL



FASTENER INFORMATION

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Thick panels (ex. 18 ga) or supports (ex. 1/2" steel) may require predrilling of holes for screws.

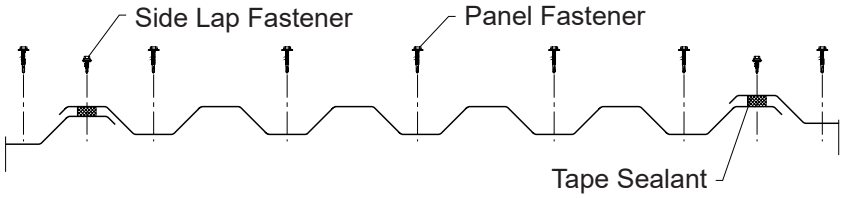
Panel Fasteners:
- Attaching to Wood:
  - #10-14 XL Wood Screw
- Attaching to Steel:
  - ≤12 ga: #12-14 XL Driller

Side Lap Fastener:
- 1/4"-14x7/8" XL Stitch Screw, 1' on center

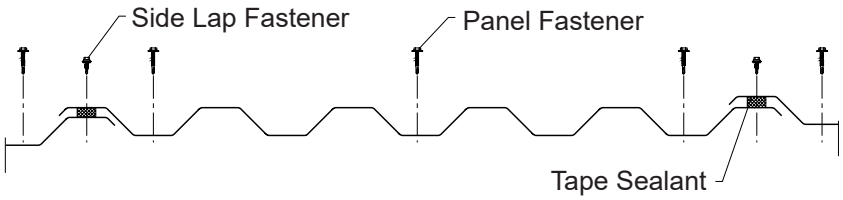
Trim Fasteners:
- 1/4"-14 x 7/8" XL Stitch Screw

FASTENING PATTERNS

ENDS OF PANEL



FIELD OF PANEL



SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf For various fastener spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load						Outward Load					
				Ixx in^4/ft	Sxx in^3/ft	Ixx in^4/ft	Sxx in^3/ft	4'	5'	6'	7'	8'	9'	4'	5'	6'	7'	8'	9'
26	36	50	0.88	0.0706	0.0817	0.0653	0.0663	88	58	41	31	24	19	90	60	42	31	24	19
26	36	80	0.88	0.0670	0.0752	0.0620	0.0614	96	64	45	34	26	21	98	65	46	34	27	21
24	36	50	1.15	0.1000	0.1208	0.0987	0.1076	149	97	68	50	39	29	140	91	64	47	36	29
22	36	50	1.51	0.1408	0.1757	0.1391	0.1557	220	142	99	73	55	38	246	160	112	82	55	38
20	36	33	1.85	0.1914	0.2451	0.1895	0.2222	207	134	94	69	53	42	227	147	103	76	58	46
18	36	33	2.45	0.2713	0.3299	0.2677	0.3229	300	194	136	100	77	61	306	198	139	102	79	62

1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
2. Allowable load is calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers the 3 or more equal spans condition. Allowable load does not address web crippling, fasteners, support material or load testing. Panel weight is not considered.
3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
4. Allowable loads do not include a 1/3 stress increase for wind.

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