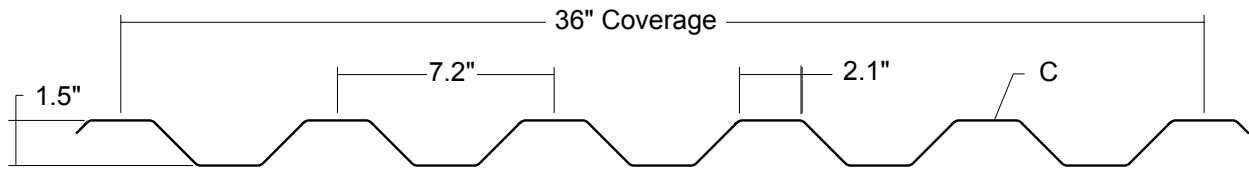


# IC72-PANEL ROOF

Condensed  
Technical  
Reference



ARCHITECTURAL  
COMMERCIAL  
INDUSTRIAL  
PANEL

EXPOSED  
FASTENED

36"  
COVERAGE

MINIMUM  
SLOPE  
1:12

OPEN FRAMING OR  
SOLID SUBSTRATE

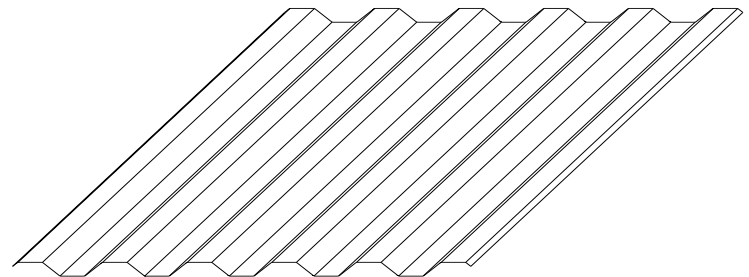
## PANEL OVERVIEW

- ▶ 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

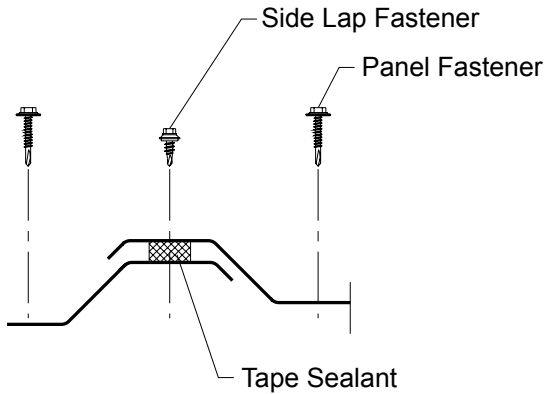


**ms metal sales**<sup>TM</sup>  
manufacturing corporation

# IC72-PANEL ROOF

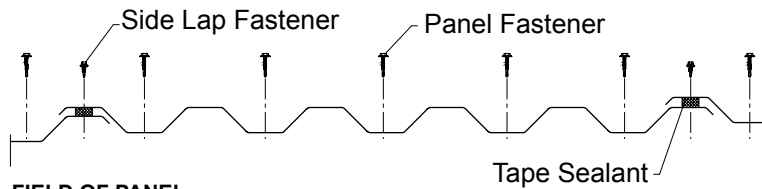
**Condensed  
Technical  
Reference**

## ATTACHMENT DETAIL

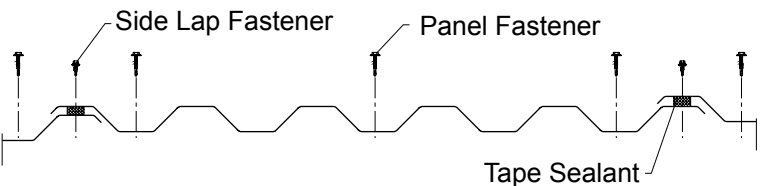


## FASTENING PATTERNS

### ENDS OF PANEL



### FIELD OF PANEL



## 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

## 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 <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	4'	5'	6'	7'	8'	9'	4'	5'	6'	7'	8'	9'
26	36	50	0.88	0.0707	0.0817	0.0653	0.0663	88	58	41	31	24	19	104	70	50	37	29	22
24	36	50	1.15	0.1000	0.1208	0.0987	0.1076	149	97	68	50	39	29	165	108	76	56	41	29
22	36	50	1.51	0.1400	0.1757	0.1400	0.1557	220	142	100	73	54	38	246	160	112	81	54	38
20	36	33	1.85	0.1900	0.2450	0.1900	0.2223	208	135	94	69	53	42	228	148	103	76	58	46
18	36	33	2.45	0.2700	0.3300	0.2667	0.3230	300	195	136	100	77	61	306	199	139	103	79	62

- 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.
- 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.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase for wind.

**ms metal sales**  
manufacturing corporation

[metalsales.us.com](http://metalsales.us.com)

Anchorage, AK 866.640.7663  
Bay City, MI 888.777.7640  
Deer Lake, PA 800.544.2577  
Denver, CO 800.289.7663

Detroit Lakes, MN 888.594.1394  
Fontana, CA 800.782.7953  
Fort Smith, AR 877.452.3915  
Independence, MO 800.747.0012

Jacksonville, FL 800.394.4419  
Jefferson, OH 800.321.5833  
Mocksville, NC 800.228.6119  
Nashville, TN 800.251.8508  
Rock Island, IL 800.747.1206  
Rogers, MN 800.328.9316

Seattle, WA 800.431.3470  
Sellersburg, IN 800.999.7777  
Sioux Falls, SD 888.299.0024  
Spokane, WA 800.572.6565  
Temple, TX 800.543.4415  
Woodland, CA 800.759.6019