

IMPower Series™ Insulated Metal Panels

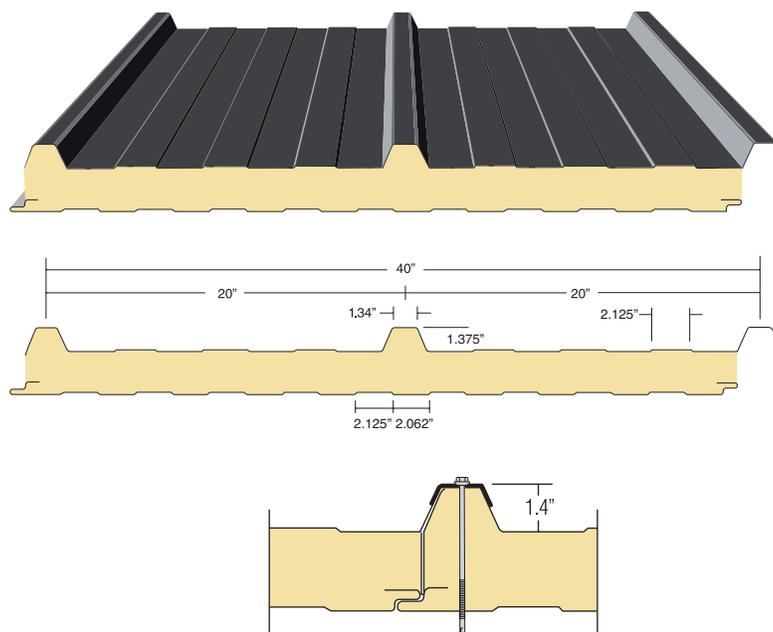
HR3 High Rib Roof System

This 3-rib exposed fastened roof panel installs quickly and easily into supporting structural members. An alternative to field-assembled high rib roof applications, the HR3 can shorten project schedules and minimize labor.

SYSTEM HIGHLIGHTS

- ▶ Achieves a continuous air barrier and continuous insulation up to R-49*
- ▶ Unique EPDM gasketed saddle washer allows for a fastener position at the standing ribs, out of the path of shedding water
- ▶ Self-aligning and overlapping joints allow for easy sealant application at panel joinery
- ▶ Factory Mutual approved for fire and wind resistance
- ▶ Accommodates long span and severe loading requirements
- ▶ Available in seven highly durable stocked colors, designed for long term weathering performance
- ▶ Can be installed on minimum slope of 1:12

*Contingent on panel thickness



ms metal sales™
manufacturing corporation

metalsales.us.com 800.406.7387

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HR3 High Rib Roof System

SIMPLY SUSTAINABLE

- ▶ Made from minimum 30% recycled steel
- ▶ Steel facings and insulation core 100% recyclable
- ▶ No CFCs (Chlorofluorocarbons)
- ▶ No VOCs (Volatile Organic Compounds)
- ▶ No ODPs (Ozone Depleting Potential)
- ▶ Meets EPA blowing agent requirements for the reduction of global warming potential
- ▶ SRI Values that meet steep and/or low-slope requirements for ENERGY STAR® and LEED®
- ▶ Effective platform for renewable energy systems

TESTING/APPROVALS

Thermal Resistance	ASTM C 518 / C 1363
Structural Strength	ASTM E 72
Fire Rating - Class 1 IMP Walls and Ceilings	FM 4880
Flame Spread	ASTM E 84
Fire, Wind, Foot Traffic, and Hail Rating	FM 4471
Air Infiltration (0.01 cfm @ 12 psf)	ASTM E 1680
Water Infiltration - None	ASTM E 1646
Florida Building Code	Approved

PANEL CHARACTERISTICS

Panel Thickness:	2.5"	4"	5"	6"
Insulating Value:	R-20	R-32	R-41	R-49
Panel Width:	40"			
Panel Length:	8'-0" minimum – 50'-0" maximum*			
Application:	Roof			
Insulation Material:	Factory-foamed polyisocyanurate (2.1 to 2.5 pcf density)			
Joint Configuration:	Overlapping with exposed fasteners and saddle clips			
Exterior Gauge:	26 ga. galvanized steel standard, 22 ga. and 24 ga. optional			
Interior Gauge:	26 ga. standard			
Exterior Coating:	PVDF and SMP			
Exterior Colors:	Sandstone, Surrey Beige, Regal White, Royal Blue, Natural Green, Pearl Gray, Imperial White Non-stock PVDF color options available			
Interior Color:	Imperial White (SMP)			
Exterior Finish:	Smooth			
Interior Finish:	Light Embossed			
Accessories:	Fasteners, concealed fastened clip, sealants, trims and flashing			

*May be available in longer lengths. Contact Metal Sales for more information.

STRUCTURAL LOAD TABLE – THREE OR MORE SPANS

PANEL THICKNESS	PANEL WEIGHT	DESIGN CRITERIA	SPAN (ft)								
			2.5	3	3.5	4	4.5	5	5.5	6	7
2.5"	2.33	Panel/Deflection Limit	139	114	96	83	73	65	59	54	45
4"	2.65	Panel/Deflection Limit	191	158	134	116	102	90	81	73	61
5"	2.86	Panel/Deflection Limit	239	198	168	146	128	114	102	93	77
6"	3.12	Panel/Deflection Limit	286	238	202	175	155	138	124	112	94

FASTENING PATTERN	CONNECTION STRENGTH	SPAN (ft)									
		2.5	3	3.5	4	4.5	5	5.5	6	7	
(1) fastener, 20" on center	16 gauge purlins	71	59	50	44	39	35	32	29	25	
	12 gauge purlins	149	124	106	93	83	75	68	62	53	
	3/16" thick purlins	298	248	212	186	165	148	135	124	106	
(1) fastener, 10" on center	16 gauge purlins	141	118	101	88	78	71	64	59	50	
	12 gauge purlins	298	248	213	186	166	149	135	124	107	

Notes:

- Spans shown are based on transverse load testing per ASTM E 72 and strength of fastening patterns.
- Spans calculated with 26 gauge exterior and interior facings.
- The lowest allowable load between panel design and connection strength must be used to determine maximum span.

- Fastening calculated with 1/4-14 Tek 3 for 16 gauge and 12 gauge purlins and 1/4-20 Tek 5 for 3/16" thick purlins.
- Deflection Limit: L/240
- Safety factor = 2.5 for buckling, 3.0 for shear, 3.0 for fastening
- Structural capacity of purlins have not been considered.
- Thermal effect due to temperature differentials have not been considered.

Be inspired.



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