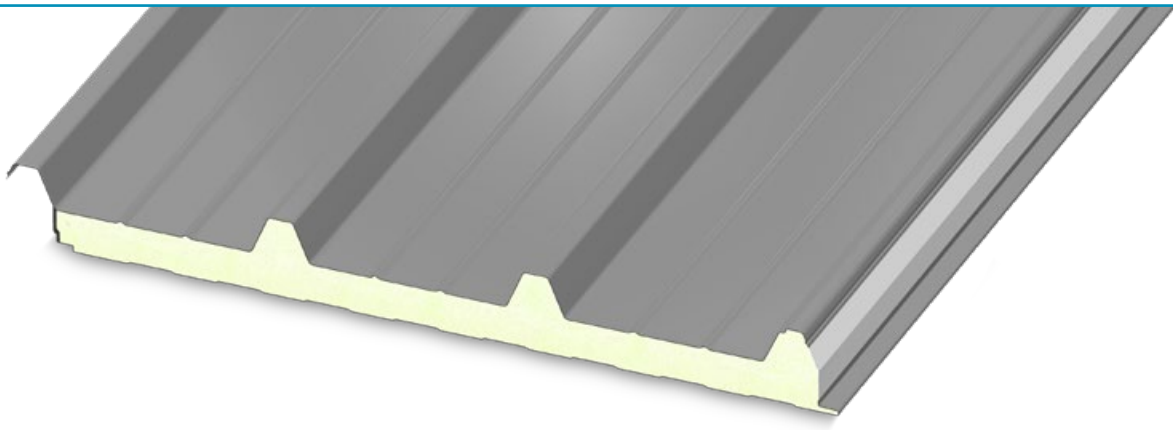
ISOCOP 4

Roof Panel



Features

A double-steel sheet roof panel assembly insulated with polyisocyanurate rigid foam. This design caters to “low sloped” pitched roofs. Sheets have (4) trapezoidal rows on each panel to enhance static and dynamic forces. Panels have an exposed fastening system that includes saddle clips at each anchoring point. Systems applicable in design to incorporate within a multitude of roofing sub-structure assemblies.

Options

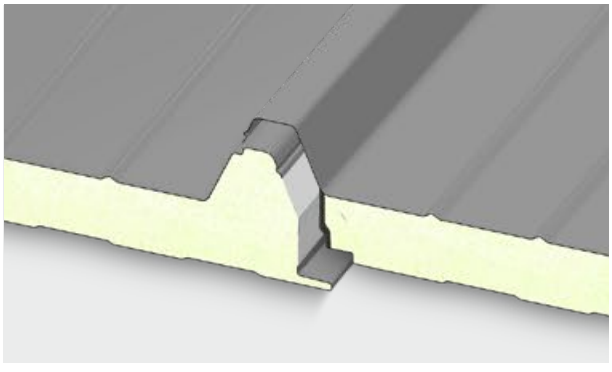
The panel is especially suited for use in industrial, warehouses, zootechnical, and residential construction. Versatility, load resistance and easy installation make Isocop a reliable solution for any kind of intervention, from new construction to roof refurbishing.

Benefits

- Rust resistance
- High mechanical strength
- Hygienic
- Easy wash material
- Mold and humidity resistance
- Gasket barrier to prevent vapor leaks

Specifications

Standard Lenght:	Typical panel lenght is 8’ up to a maximum of 54’ (Subject to transportation limitations)
Width	39 ⅜”
Joint:	Interconnecting male/female
Thickness:	1” 1½” 2” 2½” 3” 4” 5” 6” 8”
Exterior Face	Prepainted steel
Interior Face:	Shadowline profile
Foam Density:	2.49 LB/FT ^{3}
Exterior Finish:	Polyester coating
Interior Finish:	Polyester coating
Joint Type:	Exposed



For trims and accessories, ask your sales rep or contact Isocindu for more information and availability.

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Panel Information

	Exterior	Interior
Profile:	Box	Box, Piano
Texture:	Smooth, Embossed	Smooth, Embossed
Gauge:	24, 26, 28	24, 26, 28
Steel:	Pre-pinted Steel G-60, G-90 grade SS 33, SS 37, SS 40 according to ASTM A653	
Coat Finish:	Automotive performance coating of standard polyester, superpolyester or PVDF according to ASTM A755	
Width:	39.37 inches	
Thickness:	1" 1½" 1⅝" 2" 2½" 3" 4" 5" 6" 8"	
Length:	8.2 ft - 39.37 ft	
Orientation:	Vertical & Horizontal	
Joint Type:	Male - Female Joint	
Core:	Polyurethane (PUR) insulating foam / Density: 2 - 2.5 psf Polyisocyanurate (PIR) insulating foam / Density: 2.12 - 3.62 psf	
R-Value:	≈ 7.87 per inch per ASTM C518 @ 35°F ≈ 7.04 per inch per ASTM C518 @ 75°F	

Performance Testing & Approvals

Test	Procedure	Results
Fire	FM 4880	Class 1 fire rating of insulated wall or wall and roof / ceiling panels, interior finish materials or coatings, and exterior wall systems
Fire	ASTM E84	Flame spread: 25 or less / Smoke developed: 450 or less
Structural	FM 4881	Class +70 / -70 Zone TC
Structural	FM 4471	Class 1 roof panel, approved for hail resistance, wind load and fire resistance
Compression	ASTM D1621	17.4 psi with 10% of compression
Tensile Strength	ASTM D1623	Adhesion strength of insulating foam to metal
Density	ASTM D1622	Polyurethane (PUR) insulating foam Density: 2 - 2.5 psf
Density	ASTM D1622	Polyisocyanurate (PIR) insulating foam Density: 2.12 - 3.62 psf
Functional Temperature		Maximum 180 °F; minumum -13°F

Dimensional Tolerance

Lenght	L ≤ 9' 10" ± ⅛" L > 9' 10" ± ⅜"	**Perpendicularity Deviation**	¼"
Working Lenght	± 2 mm	**Misalignment of the internal metal surfaces**	± ⅛"
Thickness	D ≤ 4" ± 1/16" D > 4" ± 2 %	**Bottom Sheet Coupling**	F = 1 + ⅛"

L = working length, D = panel thickness, F = sheet coupling

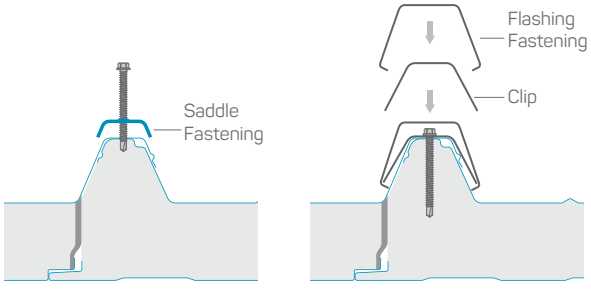
Panel Weight

Steel thickness		Panel Nominal Thickness (in) 1½"	2"	2½"	3"	4"	5"	6"	8"
26/26	PSF	2.05	2.14	2.24	2.33	2.52	2.70	2.89	3.27
24/26	PSF	2.42	2.51	2.61	2.70	2.85	3.04	3.26	3.64
24/24	PSF	2.75	2.85	2.94	3.04	3.22	3.41	3.60	3.97
22/26	PSF	2.70	2.70	2.88	2.98	3.16	3.35	3.54	3.91

Thermal Transmission

	Panel Nominal Thickness (in) 1"	1½"	2"	2½"	3"	4"	5"	6"	8"
PIR - 75° F Mean Temp - According to ASTM C518 Test									
U - Factor	0.14	0.09	0.07	0.06	0.05	0.04	0.03	0.02	0.02
R - Value	7.04	10.56	14.08	17.61	21.13	28.17	35.21	42.25	56.34
PIR - 35° F Mean Temp - According to ASTM C518 Test									
U - Factor	0.12	0.08	0.06	0.05	0.04	0.03	0.02	0.02	0.01
R - Value	7.87	11.81	15.75	19.69	23.62	31.50	39.37	47.24	62.99
PUR - 35° F Mean Temp - According to ASTM C518 Test									
U - Factor	0.13	0.08	0.06	0.05	0.04	0.03	0.02	0.02	0.01
R - Value	7.69	12.50	15.38	19.23	23.08	30.77	38.46	46.15	61.54

Joint Section



Overlapping

D = 4" -6" - 8" - 10"