

# Nucor Buildings Group R-Panel Metal Roof Panel System



The R-Panel roof has been an industry standard product for many years, whose ease of installation is field proven and efficient. Panels are 36” wide with 12” rib spacing. It is typically applied over fiberglass batt insulation, and available in Galvalume, SP, and PVDF colors.



## Panel Credentials

- ASTM E108 Test Methods for Fire Tests of Roof Coverings - Class A
- FM 4471 Class 1 Approval
- UL 580 Class 90 Approval (Const. No’s 161, 167)
- State of Florida Product Approval
- ASTM E1646 Test Method for Water Penetration of Exterior Roof Systems
- ASTM E1680 Test Method for Rate of Air Leakage Through Exterior Roof Systems
- Miami-Dade County Approved

## Panel Specifications

Gage	Thickness (in.)	Yield (ksi)	Tensile (ksi)	Panel Wt. (psf)	I <sub>x</sub> (Gross) (in <sup>4</sup> )	TOP IN COMPRESSION		BOTTOM IN COMPRESSION	
						S <sub>x</sub> (eff.) (in <sup>3</sup> )	M <sub>a</sub> (kip-in)	S <sub>x</sub> (eff.) (in <sup>3</sup> )	M <sub>a</sub> (kip-in)
26	0.0177	80	82	0.86	0.0490	0.0378	1.3590	0.0462	1.6593
24	0.0222	80	82	1.08	0.0633	0.0543	1.9520	0.0588	2.1133

### Panel Capacity (psf)

SPAN (ft.)	26 GAGE		24 GAGE	
	Gravity	Uplift	Gravity	Uplift
1.0	236	217	360	225
1.5	158	145	240	150
2.0	118	109	180	113
2.5	95	87	144	90
3.0	79	72	120	75
3.5	68	62	103	64
4.0	59	54	90	56
4.5	53	48	80	50
5.0	47	43	69	45
5.5	43	37	57	41

### NOTES

1. Section properties were calculated in accordance with AISI S100/CSA S136, 2016 Edition.
2. Panels were checked for bending, shear, combined bending and shear, web crippling, deflection and panel pullover.
3. Deflection is limited to Span/60.
4. Panel pullover limits are based on d’w = 0.44”.
5. Thermal load has not been considered.
6. Capacities are based on a 3-span condition with equal length spans.
7. “Gravity” load is applied inward on the outer surface towards supports.
8. “Uplift” load is applied outward on the inner surface away from panel supports.