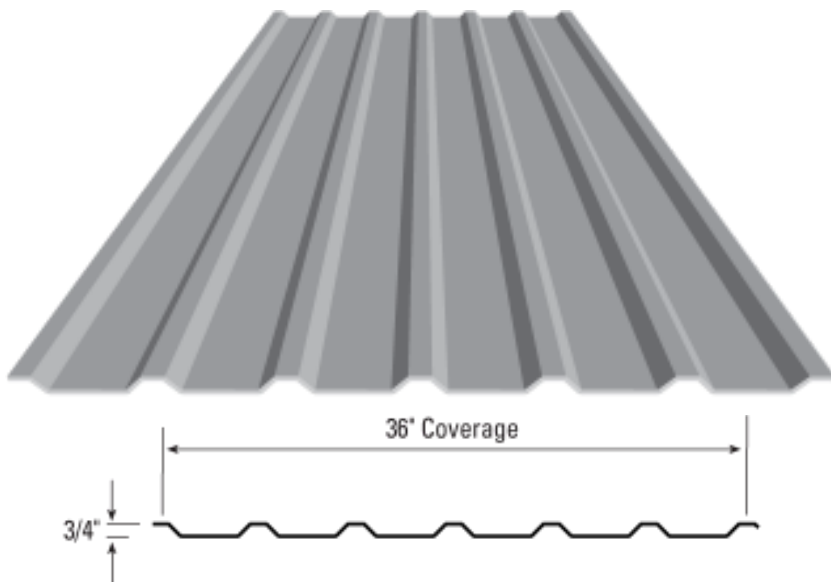




**Metal Center**  
METAL ROOFING SUPPLY

1630 Second Street NW  
Albuquerque, NM 87102  
(505) 717-2224

# U-Panel



## Product Overview

Metal Center's U-Panel is designed for industrial, agricultural, commercial, residential and steel-frame building applications. This type of metal roofing panel is typically used as siding or for soffit with some roofing use as well.

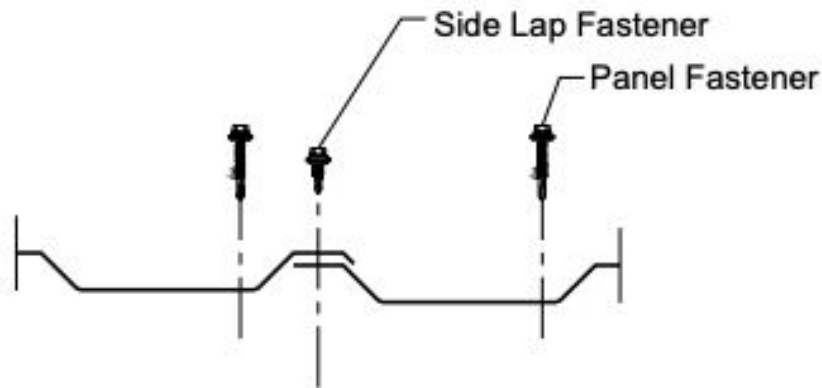
### Testing & Approvals

- UL 2218 Impact Resistance - Class 4
- Class 4 UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- UL 580 Uplift Resistance - Class 90 Construction: #39 Texas Windstorm - Evaluation RC-196

Required Substrate: U-Panel is designed to be utilized over open structural framing, but can easily be used with a solid substrate. The recommended substrate is 5/8" plywood with at least a 30 pound felt moisture barrier.

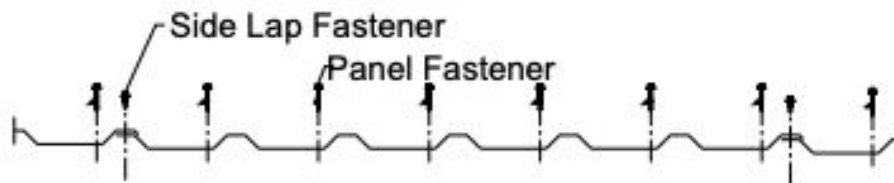
- Minimum Slope: The minimum recommended slope for U-Panel is 3:12. Metal Center strongly recommends the use of sealant tape for all sidelaps when used for roofing.
- Coverage
  - Each panel's effective coverage is 3' (36 inches).
- Lengths
  - The minimum length for U-Panel is 3' 2", with a maximum recommended length of 35'.
- Availability
  - U-Panel is a special order product with an approximate arrival time of 1-week.
- Application
  - U-Panel is used largely in commercial, industrial, residential, and agricultural settings.
- Fastening System
  - Exposed Fastened.
- Materials
  - Steel Grade 80 per ATSM A-792 or ATSM A-792-AZ55
  - Steel Grade 50 per ATSM A-792 in 24 Gauge
- Finish
  - Acrylic Coated Galvalume® (ACG) / ASTM A-792 - AZ55
  - Prepainted Galvalume / ASTM A-792 - AZ50
  - Silicone-Modified Polyester (SMP)
  - \*\*Fluorocarbon (PVDF)
    - \* Differential appearance of Acrylic Coated Galvalume roofing materials is not a cause for rejection.
    - \*\* Meets both Kynar 500 and Hylar 5000 specifications.

## U-Panel Fastening Procedures



### FASTENING PATTERN

#### Ends and Field of Panel



SECTION PROPERTIES								ALLOWABLE UNIFORM LIVE LOADS PSF (3 or More Equal Spans)											
Ga.	Width (in.)	Yield KSI	Weight PSF	Top in Compression		Bottom in Compression		Inward (Gravity / Deflection) Load						Outward Uplift (Stress) Load					
				I <sub>xx</sub> In <sup>4</sup> /ft	S <sub>xx</sub> In <sup>3</sup> /ft	I <sub>xx</sub> In <sup>4</sup> /ft	S <sub>xx</sub> In <sup>3</sup> /ft	2'	3'	4'	5'	6'	7'	2'	3'	4'	5'	6'	7'
26	36"	80	0.91	0.0360	0.0358	0.0313	0.0452	256	127	74	49	34	23	217	104	60	39	27	20
24	36"	50	1.17	0.0560	0.0578	0.0457	0.0613	330	153	88	57	39	29	314	145	83	53	37	27
22	36"	50	1.51	0.0800	0.0856	0.0633	0.0813	451	206	117	75	52	39	472	217	123	79	55	40

- Theoretical section properties have been calculated per AISI 2001 "Specification for the Design of Cold-formed Steel Structural Members." I<sub>xx</sub> and S<sub>xx</sub> are effective section properties for deflection and bending.
- Allowable load is calculated in accordance with AISI 2001 specifications considering bending, shear, combined bending and shear, deflection, and applicable testing when available. Allowable load considers the worst case of 3 and 4 equal span conditions. Allowable load does not address web crippling or fasteners/support connection and 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 in uplift.