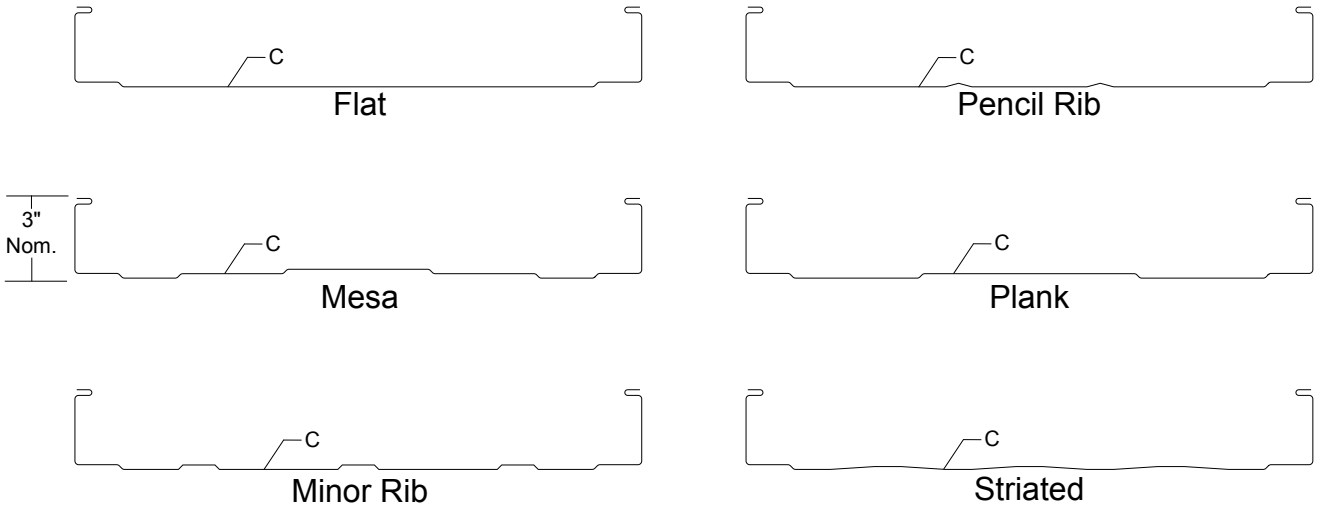
3" T-ARMOR ALUMINUM

Condensed Technical Reference

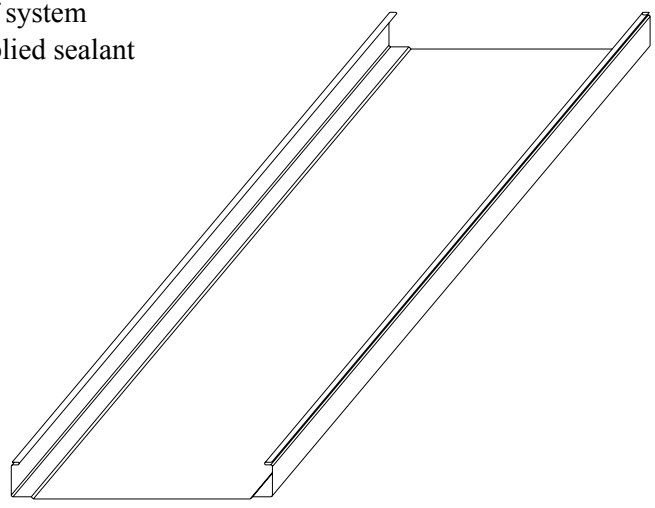


*Profiles are shown for 16" wide panels. Other width panels are similar.

ARCHITECTURAL COMMERCIAL INDUSTRIAL PANEL | **CONCEALED FASTENED** | **12", 16" OR 18" COVERAGE** | **MINIMUM SLOPE 1/2:12** | **OPEN FRAMING OR SOLID SUBSTRATE**

PANEL OVERVIEW

- Finish: PVDF and Mill Finish
- Material: 3003-H14 Aluminum per ASTM B 209
- Thicknesses: 0.032"
- 12", 16" or 18" panel coverage, 3" rib height
- Panel Length: Minimum: 6', Maximum: 80'
- Architectural, structural vertical rib standing seam roof system
- Integral mechanically seamed side lap with factory-applied sealant
- Minimum roof slope: 1/2:12
- Accommodates 1/2" to 6" blanket insulation



TESTING AND APPROVALS

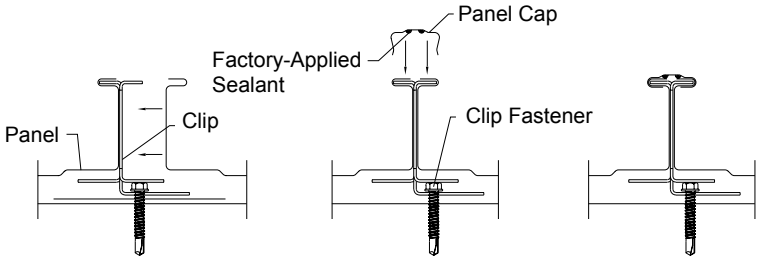
- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- ASTM E 1592 Structural Performance
- ICC Evaluation Report - ESR-3743

metal sales™ manufacturing corporation

3" T-ARMOR ALUMINUM

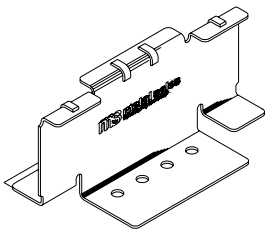
Condensed Technical Reference

ATTACHMENT DETAILS

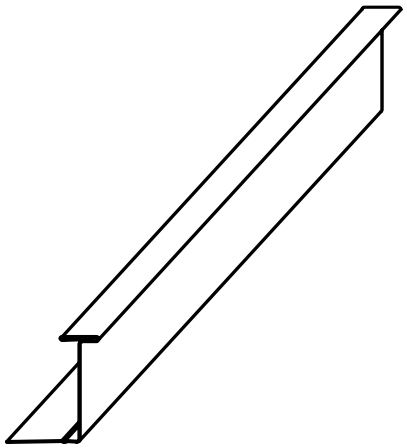


INSTALLING PANEL | INSTALLING CAP | SEAMED

CLIP OPTIONS



INDIVIDUAL CLIP



CONTINUOUS CLIP

FASTENING INFORMATION

▶ Clips

Clip spacing is based upon the design loads, the spanning capacity of the panels, the fasteners and the support members.

Individual clips are 0.060" thick, G90 is standard, 410 stainless is optional. Continuous clips are 24 or 22 ga.

Both individual and continuous clips can accomodate practically unlimited thermal movement in each direction.

▶ Fasteners

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Clip Fasteners:
- Attaching to Wood:
  - #12-11 x 1-1/2" Wood Screw
- Attaching to Steel:
  - <18 ga: 1/4"-14 Deck Screw
  - >=18 ga, <=12 ga: 1/4"-14 Driller, No Washer
  - >12 ga: 1/4"-24 Driller, No Washer

Exposed End Fasteners:
- At Eave Plate or Back-Up Channel:
  - #12-14 BiMetal Driller (Stainless Steel)

Concealed End Fasteners:
- At Eave Plate or Back-Up Channel:
  - #12-14 BiMetal Driller (Stainless Steel)

Trim Fasteners:
- #14-11x1" Stitch Screw (Stainless Steel)
- 1/8" x 3/16" Pop Rivet

SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf (3 or More Equal Spans)

Thick in	Width in	Yield ksi	Weight psf	I in^4/ft	S_{Top} in^3/ft	S_{Bottom} in^3/ft	Inward Load						Outward Load					
							2'	2.5'	3'	3.5'	4'	5'	2'	2.5'	3'	3.5'	4'	5'
0.032	12	17	0.77	0.8880	0.4313	0.9734	187	122	85	63	49	31	55	51	46	42	37	28
0.032	16	17	0.69	0.7313	0.3319	0.9503	136	89	62	46	35	23	55	51	46	42	37	28
0.032	18	17	0.66	0.6727	0.2977	0.9420	120	78	55	41	31	20	55	51	46	42	37	28

1. Theoretical section properties have been calculated per Aluminum Association's 2010 'Aluminum Design Manual'. I, S_{Top} and S_{Bottom} are section properties for deflection and bending.
2. Allowable loads are calculated in accordance with ADM 2010 specification considering bending, shear, combined bending and shear, deflection and ASTM E 1592 uplift load testing on 16 ga purlins. Allowable loads consider the 3 or more equal spans condition. Panel weight is not considered.
3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
4. Allowable loads do not include a 1/3 stress increase for wind.

metal sales manufacturing corporation
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