

3" T-ARMOR ALUMINUM

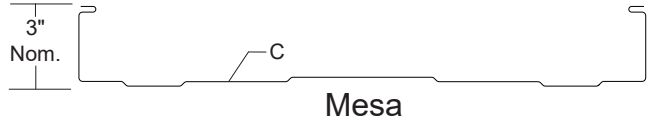
Condensed
Technical
Reference



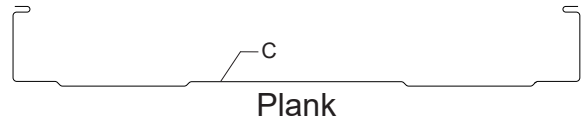
Flat



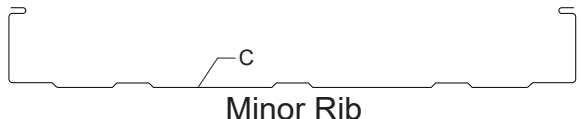
Pencil Rib



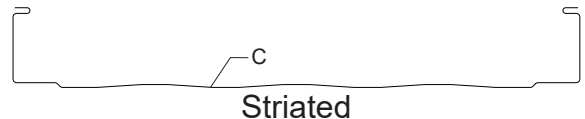
Mesa



Plank



Minor Rib



Striated

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

ARCHITECTURAL
COMMERCIAL
INDUSTRIAL
PANEL

CONCEALED
FASTENED

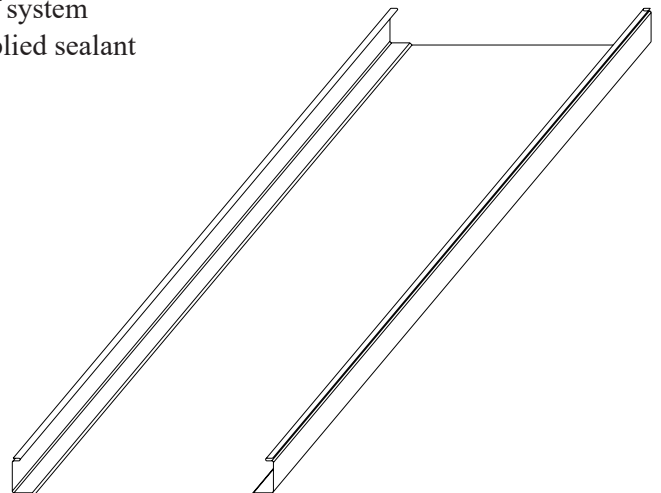
12", 16" OR 18"
COVERAGE

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

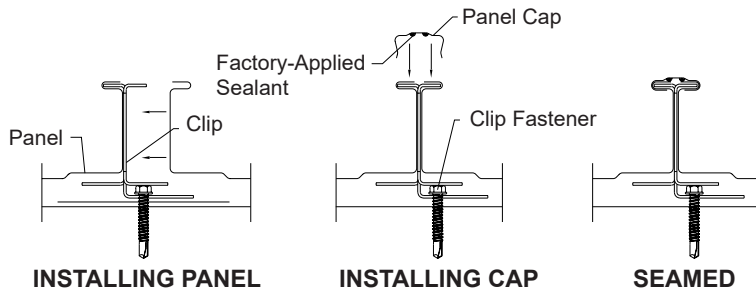
- ▶ UL 2218 Impact Resistance - Class 4
- ▶ UL 790 Fire Resistance Rating - Class A, per building code
- ▶ UL 263 Fire Resistance Rating - per assembly
- ▶ ASTM E 1592 Structural Performance
- ▶ ICC Evaluation Report - ESR-3743

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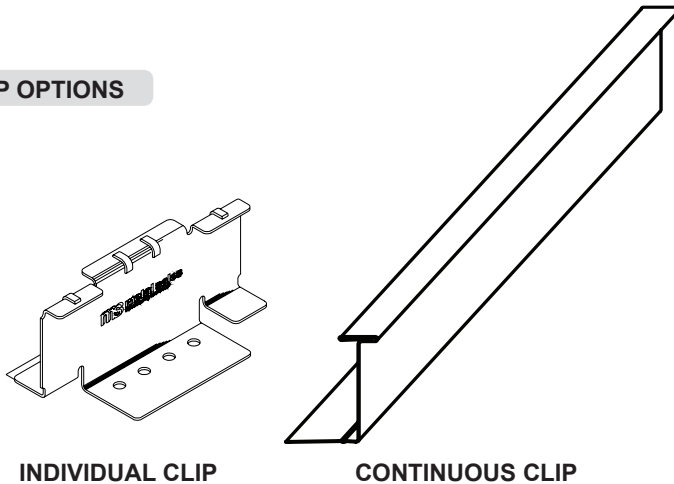
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ATTACHMENT DETAILS



CLIP OPTIONS



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 accommodate 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
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

- 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.
- 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.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase for wind.

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