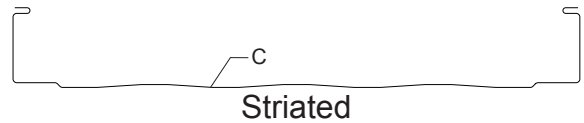
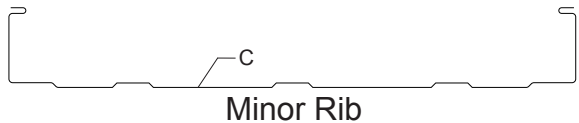
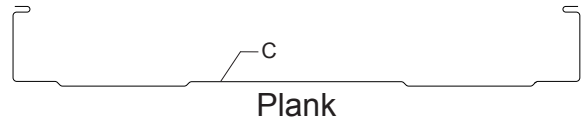
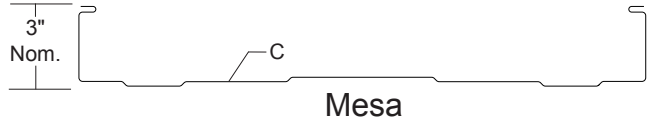


3" T-ARMOR ALUMINUM

Condensed
Technical
Reference



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

ARCHITECTURAL
COMMERCIAL
INDUSTRIAL
PANEL

CONCEALED
FASTENED

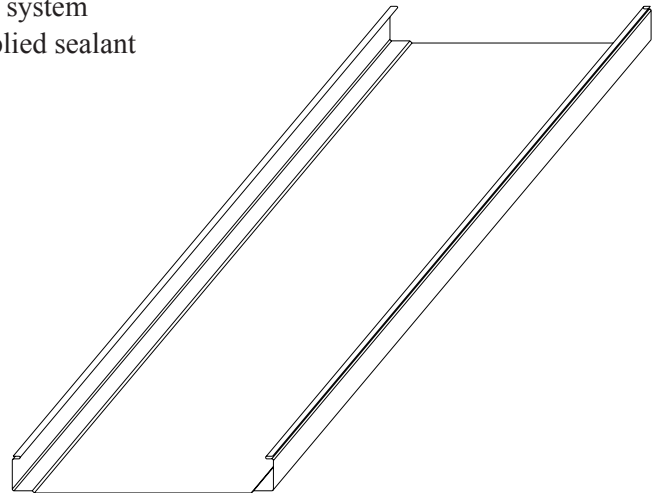
12", 16" OR 18"
COVERAGE

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" and 0.040"
- ▶ 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

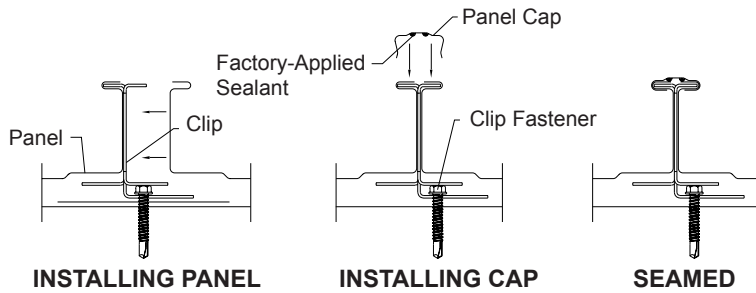
- ▶ UL 2218 Impact Resistance - Class 4
- ▶ UL 790 Fire Resistance Rating - Class A, per building code
- ▶ UL 263 Fire Resistance Rating - per assembly
- ▶ ASTM E 1592 Structural Performance
- ▶ ICC Evaluation Report - ESR-3743

ms metal sales[™]
manufacturing corporation

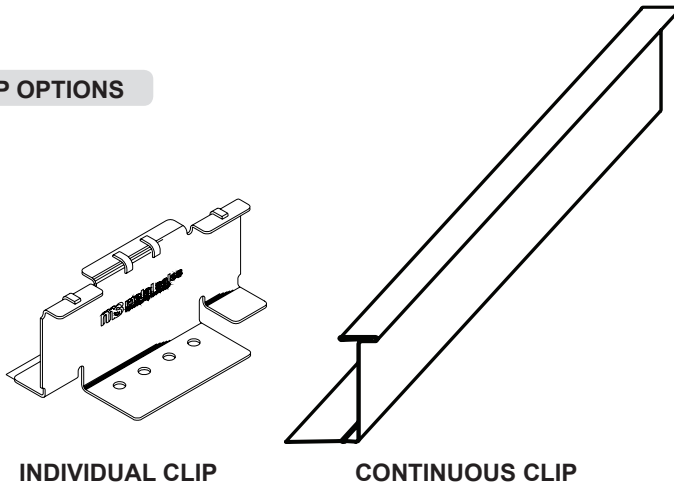
3" T-ARMOR ALUMINUM

**Condensed
Technical
Reference**

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
0.040	12	17	0.96	1.1060	0.5374	1.2099	289	189	133	98	76	49	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
0.040	16	17	0.86	0.9105	0.4135	1.1803	211	137	97	72	55	35	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
0.040	18	17	0.83	0.8367	0.3709	1.1695	186	121	85	63	48	31	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.

ms metal salesTM
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 888.902.8320
Spokane, WA 800.572.6565
Temple, TX 800.543.4415
Woodland, CA 800.759.6019