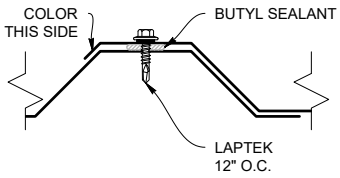
TAYLOR METAL PRODUCTS

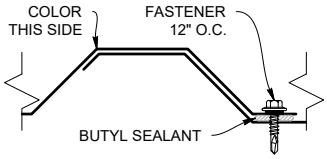
TR-7.2
Roof & Wall Panel Technical Data Resource

ICC-ES EVALUATION REPORT #5045 AND #5046 with CBC-CRC Supplement Coming in 2024

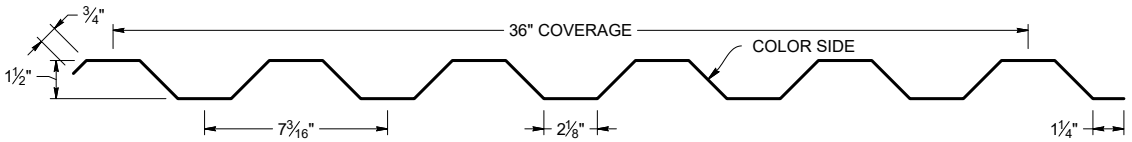
ROOF LAP DETAIL



WALL LAP DETAIL



ROOF & WALL PROFILE



KEY FEATURES

- 24 and 22 Tru-Gauge™ and .032” and .040” Aluminum
- Custom 20 & 18 Tru-Gauge™ and .040” Aluminum (*please inquire*)
- 1:12 minimum pitch recommended when installed with butyl sealant
- Custom lengths 3’ to 20’ 6” (*For longer length panels, please inquire*)
- Long length flashings available up to 20’ 11”
- Standard trim, custom trim and accessory packages available
- Color matched neoprene washered screws
- Roof and Vertical or Horizontal Wall application
- Structural panel that will span up to 6’
- Manufactured in Salem OR and Riverside CA
- OverEZee™ Retro-fit systems available

TESTING (Coming in 2024)

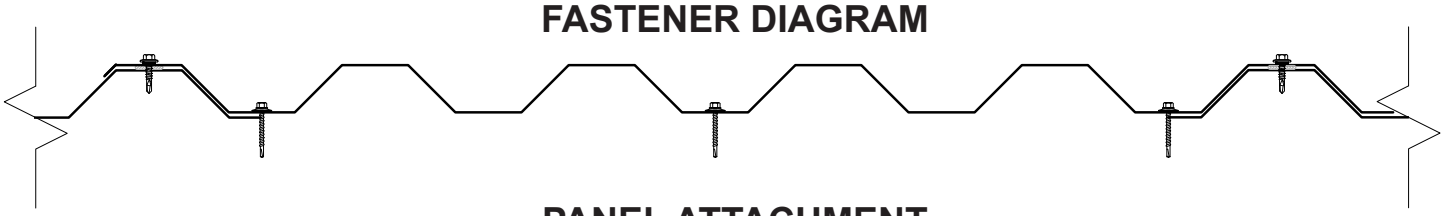
- UL 580 Class 90 - Wind Uplift
- UL 790 Class A (ASTM E108) - Fire rated
- UL 2218 Class 4 - Impact (hail) rated
- ASTM E1680 - Air infiltration (roof)
- ASTM E1646 - Water infiltration (roof)
- ASTM E1592 - Negative structural uniform static air pressure
- ASTM E330 - Positive structural uniform static air pressure
- ASTM E331 - Water infiltration (wall)
- ASTM E283 - Air infiltration (wall)
- ASTM A653/A924 - G90 Galvanized
- ASTM A792 - Zincalume/Galvalume AZ-50/55
- ASTM B209 - Aluminum Substrate

WEIGHT CHART

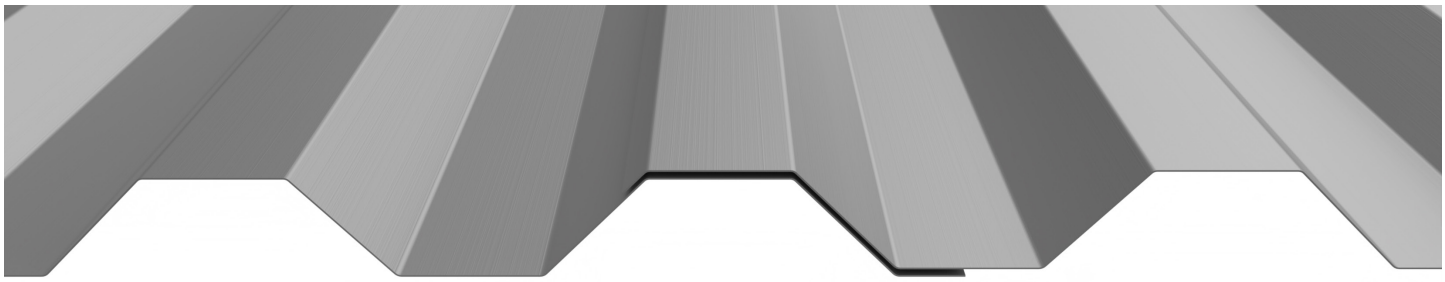
TR-7.2	WIDTH	24 GA STEEL	22 GA STEEL	.032 ALUM	.040 ALUM
THICKNESS		0.0236”	0.0285”	0.032”	0.040”
WEIGHT/LINFT	36”	3.640 LBS	4.396 LBS	1.725 LBS	2.156 LBS
WEIGHT/LSQFT	36”	1.213 LBS	1.465 LBS	0.575 LBS	0.719 LBS

ASTM E 1680/E283 Air Penetration	ASTM E 1646/E331 Water Penetration
25 PSF<0.01 CFM/ft²-PASS	50 PSF - Pass
STRUCTURAL TESTING ASTM E1592 AND E330	
Coming in 2024	

FASTENER DIAGRAM



PANEL ATTACHMENT



Fastener Notes:

- When possible, lap panels away from prevailing wind direction.
- 15/32” OSB: #14 GP Neoprene Washered fastener. Screws should be long enough to penetrate through the bottom of the plywood by 3/8”.
- 15/32” Plywood: #14 GP Neoprene Washered fastener. Screws should be long enough to penetrate through the bottom of the plywood by 3/8”.
- Dimensional lumber: #10 GP. Screws should penetrate the lumber 1”.
- 16GA (or less) steel furring: #12 Fastener with DP-1
- Sidelaps fasten with #14 LapTek screws.
- All trim screws used for roof or wall applications should have EPDM sealing washers.
- Fastener spacing is based on project specific structural requirements. Consulant a licensed engineer.

TAYLOR METAL PRODUCTS

NEGATIVE LOAD CHART WITH 5 SCREWS

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)								
				Top in Compression			Bottom in Compression			Negative Load								
Width, in.	Gauge	Yield ksi	Weight psf	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	1'	1.5'	2'	2.5'	3'	3.5'	4'	4.5'	5'
36	24	50	1.21	0.1100	0.1100	0.1297	0.1100	0.1100	0.1221	150.0	139.4	128.8	118.1	107.5	96.9	86.3	75.6	65.0
36	22	50	1.46	0.1400	0.1390	0.1663	0.1370	0.1380	0.1557	150.0	139.4	128.8	118.1	107.5	96.9	86.3	75.6	65.0
36	20	33	1.88	0.1870	0.1860	0.2380	0.1830	0.1840	0.2220	150.0	139.4	128.8	118.1	107.5	96.9	86.3	75.6	65.0
36	18	33	2.44	0.2600	0.2590	0.3350	0.2570	0.2580	0.3170	150.0	139.4	128.8	118.1	107.5	96.9	86.3	75.6	65.0
36	0.032"	19	0.58	0.1900	0.1900	0.2570	0.1900	0.1900	0.2430	110.0	99.4	88.8	78.1	67.5	56.9	46.3	35.6	25.0
37	0.040"	19	0.72	0.2370	0.2370	0.3180	0.2370	0.2370	0.3010	110.0	99.4	88.8	78.1	67.5	56.9	46.3	35.6	25.0
38	0.050"	19	0.91	0.2930	0.2930	0.3940	0.2930	0.2930	0.4450	110.0	99.4	88.8	78.1	67.5	56.9	46.3	35.6	25.0

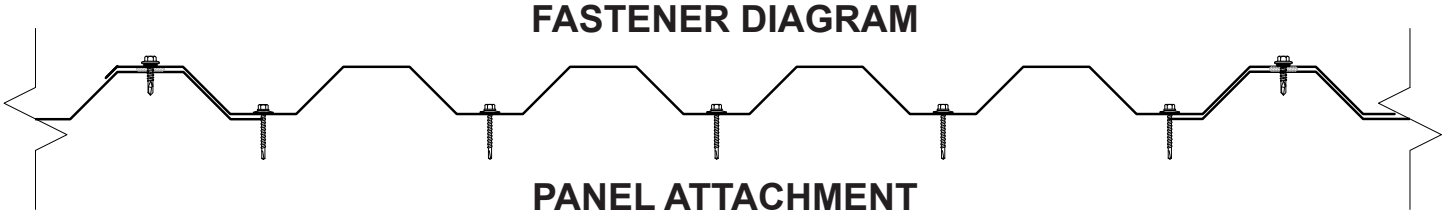
1. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
2. Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by a 2.00 Factor of Safety.
3. Deflection limit consideration for positive (downward) loading is limited to a deflection ratio of L/180 of the span..where “L” is the span in inches Charted Allowable Uniform Loads cannot be increased by 1/3.

POSITIVE LOAD CHART WITH 5 SCREWS

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)									
				Top in Compression			Bottom in Compression			Positive Load									
Width, in.	Gauge	Yield ksi	Weight psf	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
36	24	50	1.21	0.1100	0.1100	0.1297	0.1100	0.1100	0.1221	997.3	498.6	332.4	190.8	122.1	84.8	62.3	47.7	37.7	30.5
36	22	50	1.46	0.1400	0.1390	0.1663	0.1370	0.1380	0.1557	1340.9	670.45	434.5	243.28	155.7	108.12	79.44	60.8	48.1	38.9
36	20	33	1.88	0.1870	0.1860	0.2380	0.1830	0.1840	0.2220	1077.3	538.64	359.09	231.3	148.0	102.8	75.51	57.8	45.7	37.0
36	18	33	2.44	0.2600	0.2590	0.3350	0.2570	0.2580	0.3170	1860.9	930.5	587.0	330.21	211.33	146.76	107.82	82.55	65.2	52.8
36	0.032"	19	0.58	0.1900	0.1900	0.2570	0.1900	0.1900	0.2430	147.3	73.6	49.1	36.8	29.5	24.6	19.63	15.0	11.9	
36	0.040"	19	0.72	0.2370	0.2370	0.3180	0.2370	0.2370	0.3010	246.4	123.2	82.1	61.6	49.3	41.1	30.56	23.4	18.5	15.0
36	0.050"	19	0.91	0.2930	0.2930	0.3940	0.2930	0.2930	0.4450	384.6	192.3	128.2	96.1	76.9	63.0	46.3	35.45	28.0	22.7

1. Theoretical section properties for steel panels have been calculated per 2020 AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
2. Allowable loads for Steel panels are calculated in accordance with 2020 AISI S100 specifications considering bending , shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
3. When panels are installed over solid or closely fitted sheathing, the capacity is limited to the capacity of the underlying sheathing.

FASTENER DIAGRAM



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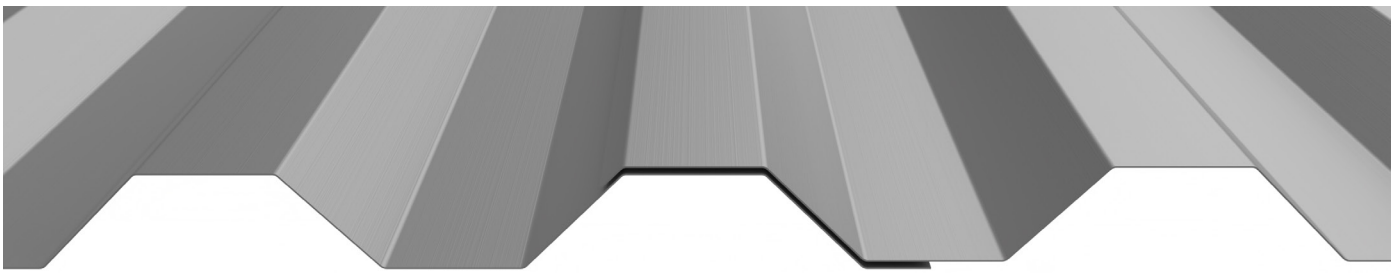

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Rev. Date 11-24