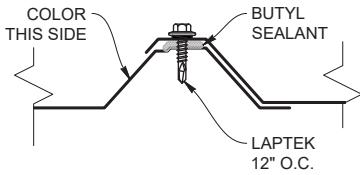


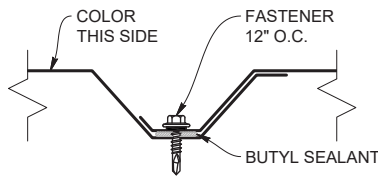


ICC-ES EVALUATION REPORT #5045 AND #5046 with CBC-CRC Supplement

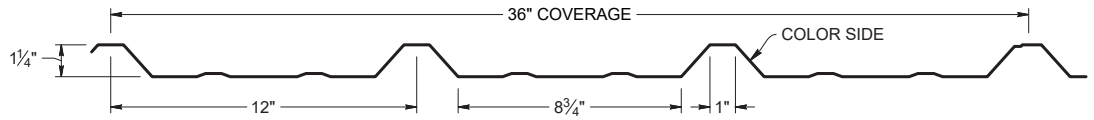
LAP DETAIL



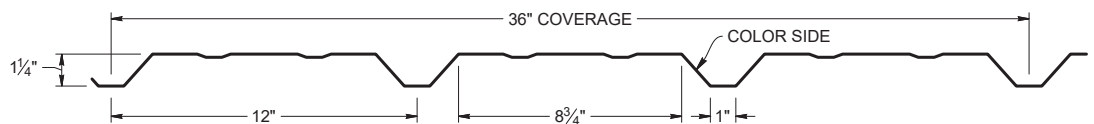
LAP DETAIL



ROOF & WALL PROFILE





OPTIONAL WALL PROFILE



KEY FEATURES

- 26, 24 and 22 Tru-Gauge™ and .032" Aluminum
- 1:12 minimum pitch recommended when installed with butyl sealant
- Custom lengths 1' to 45'
(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
- Perforated options available (please inquire)
- Fiberglass & Polycarbonate panels available to match profile
- Manufactured in Salem OR, Riverside CA and Sacramento CA
- OverEZee™ retro-fit systems available

TESTING

-  ICC-ESR #5045 & #5046 with CBC-CRC Supplement
-  Code compliance UL Evaluation Report UL ER #25913-01. Construction No. 30,54,79,104,112,161,167,184,542
- 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
- ASTM E455-19 - Shear and Diaphragm.
(For engineering data, please inquire)

WEIGHT CHART

| PBR | WIDTH | 26 GA STEEL | 24 GA STEEL | 22 GA STEEL | .032 ALUM | .040 ALUM |
|--------------|-------|-------------|-------------|-------------|-----------|-----------|
| THICKNESS | | 0.019" | 0.0236" | 0.0285" | 0.032" | 0.040" |
| WEIGHT/LINFT | 36" | 2.777 LBS | 3.473 LBS | 4.194 LBS | 1.646 LBS | 2.043 LBS |
| WEIGHT/LSQFT | 36" | 0.926 LBS | 1.158 LBS | 1.398 LBS | 0.549 LBS | 0.721 LBS |

| ASTM E 1680/E283 Air Penetration | ASTM E 1646/E331 Water Penetration |
|---|---------------------------------------|
| 25 PSF<0.01 CFM/ft ² -PASS | 50 PSF - Pass |
| Intertek Test Result M3027.01-901-44 | |
| Intertek Test Result M3027.01-901-44 | |
| STRUCTURAL TESTING ASTM E1592 AND E330 | |
| Intertek Test Result M2748.03-301-44 R1 | |

NEGATIVE LOAD CHART WITH 3 SCREWS

| | | | | SECTION PROPERTIES | | | | | | ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values) | | | | | | | | | | | |
|-------|------------|-----------|------------|----------------------------------|--|---------------------------------|----------------------------------|--|---------------------------------|--|-------|------|------|------|-------------------------|-------|-------|------|------|------|------|
| Gauge | Width, in. | Yield ksi | Weight psf | Top in Compression | | | Bottom in Compression | | | Inward Load (Negative) | | | | | Outward Load (Positive) | | | | | | |
| | | | | 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 | 3' | 4' | 5' | 6' | 7' | 8' | 3' | 4' | 5' | 6' | 7' | 8' |
| 26 | 36 | 80 | 0.85 | 0.0453 | 0.0399 | 0.0448 | 0.0267 | 0.0321 | 0.0391 | 130.3 | 73.3 | 46.9 | 32.6 | 23.9 | 18.3 | 149.3 | 84.0 | 53.8 | 37.3 | 27.4 | 21.0 |
| 24 | 36 | 50 | 1.19 | 0.0633 | 0.0555 | 0.0639 | 0.0363 | 0.0441 | 0.0553 | 153.6 | 86.4 | 55.3 | 38.4 | 28.2 | 21.6 | 177.5 | 99.8 | 63.9 | 44.4 | 32.6 | 25.0 |
| 22 | 36 | 50 | 1.51 | 0.0867 | 0.0761 | 0.0989 | 0.0500 | 0.0606 | 0.0751 | 208.6 | 117.3 | 75.1 | 52.2 | 38.3 | 29.3 | 274.7 | 154.5 | 98.9 | 68.7 | 50.5 | 38.6 |

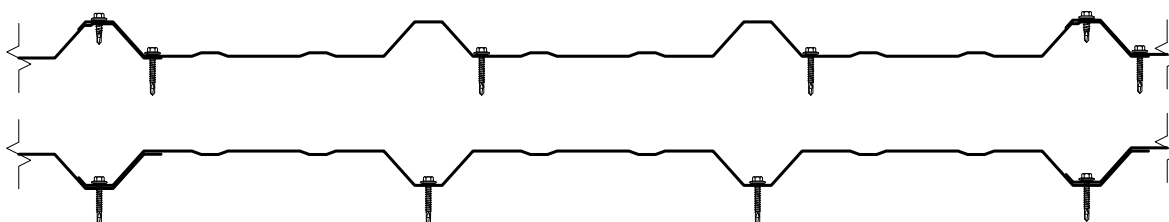
- Theoretical section properties for still panels have been calculated per AISI S100 Specifications for Design of Cold-Formed Steel Structural Members. Intertek M7269.01-301-44 R0
- Charted Load/Span values are based on ASTM E1592-05, divided by a 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
 - Open-Framing (i.e. purlins)-16ga (design thickness 0.0566")
 - Plywood/OSB-15/32" or thicker is recommended to assure an effective degree of fastener thread engagement.
 - METAL DECK - 22ga (design thickness 0.0283")

POSITIVE LOAD CHART WITH 3 SCREWS

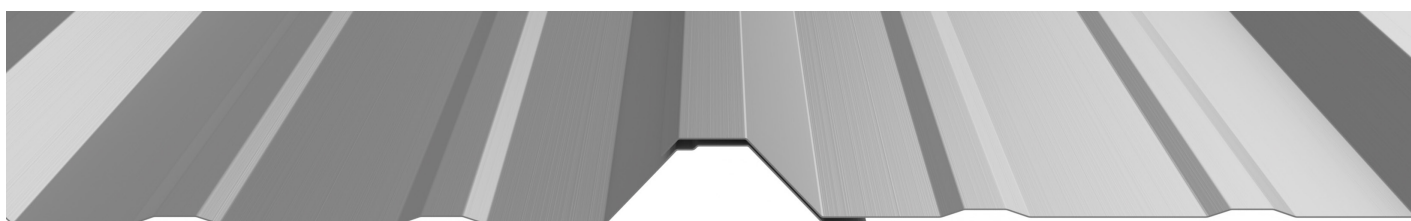
| | | | | SECTION PROPERTIES | | | | | | ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values) | | | | | | | | | |
|------------|--------|-----------|------------|----------------------------------|--|---------------------------------|----------------------------------|--|---------------------------------|--|-------|-------|-------|-------|------|------|------|------|------|
| Width, in. | Gauge | Yield ksi | Weight psf | Top in Compression | | | Bottom in Compression | | | Positive Load | | | | | | | | | |
| | | | | 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 | 2' | 2.5' | 3' | 3.5' | 4' | 4.5' | 5' | 5.5' | 6' | 8' |
| 36 | 26 | 80 | 0.85 | 0.0453 | 0.0399 | 0.0448 | 0.0267 | 0.0321 | 0.0391 | 192.3 | 153.8 | 128.2 | 109.9 | 96.1 | 77.2 | 62.6 | 51.7 | 43.4 | 24.4 |
| 36 | 24 | 50 | 1.19 | 0.0633 | 0.0555 | 0.0639 | 0.0363 | 0.0441 | 0.0553 | 191.4 | 153.1 | 127.6 | 109.4 | 86.4 | 68.3 | 55.3 | 45.7 | 38.4 | 21.6 |
| 36 | 22 | 50 | 1.51 | 0.0867 | 0.0761 | 0.0989 | 0.0500 | 0.0606 | 0.0751 | 306.4 | 245.1 | 204.2 | 153.3 | 117.3 | 92.7 | 75.1 | 62.1 | 52.2 | 29.3 |
| 36 | 0.032" | 19 | 0.52 | 0.0967 | 0.0967 | 0.0990 | 0.0967 | 0.0967 | 0.3023 | 40.4 | 32.3 | 26.9 | 23.1 | 20.2 | 17.9 | 16.2 | 14.7 | 13.5 | 10.1 |

- Theoretical section properties for Steel panel have been calculated per 2020 AISI S100 North America Specifications for the Design of Cold-Formed Steel Structural Member.
- 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.
- When panels are installed over solid or closely fitted sheathing, the capacity is limited to the capacity of the underlying sheathing.

FASTENER DIAGRAM (NOT TESTED)



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. Consult a licensed engineer.

NEGATIVE LOAD CHART WITH 6 SCREWS

| SECTION PROPERTIES | | | | ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values) | | | | | | | | | | | | |
|--------------------|--------|----|------|--|--|----------------------------------|----------------------------------|--|----------------------------------|---------------|-------|-------|-------|-------|------|------|
| | | | | Top in Compression | | | Bottom in Compression | | | Negative Load | | | | | | |
| | | | | 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. | 2' | 2.5' | 3' | 3.5' | 4' | 4.5' | 5' |
| 36 | 26 | 80 | 0.85 | 0.0453 | 0.0399 | 0.0448 | 0.0267 | 0.0321 | 0.0391 | 100.0 | 92.5 | 85.0 | 77.5 | 70.0 | 62.5 | 55.0 |
| 36 | 24 | 50 | 1.19 | 0.0633 | 0.0555 | 0.0639 | 0.0363 | 0.0441 | 0.0553 | 175.0 | 156.7 | 138.3 | 120.0 | 101.7 | 83.3 | 65.0 |
| 36 | 22 | 50 | 1.51 | 0.0867 | 0.0761 | 0.0989 | 0.0500 | 0.0606 | 0.0751 | 200.0 | 178.3 | 156.7 | 135.0 | 113.3 | 91.7 | 70.0 |
| 36 | 0.032" | 19 | 0.52 | 0.0967 | 0.0967 | 0.0990 | 0.0967 | 0.0967 | 0.3023 | 187.5 | 165.5 | 143.3 | 121.3 | 99.2 | 77.1 | 55.0 |

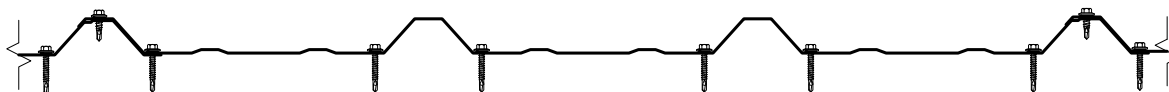
- Theoretical section properties for still panels have been calculated per AISI S100 Specifications for Design of Cold-Formed Steel Structural Members. Intertek M7269.01-301-44 R0
- Charted Load/Span values are based on ASTM E1592-05, divided by a 2.00 Factor-of-Safety.
- Minimum recommended substrate (structure) recommendations:
 - Open-Framing (i.e. purlins)-16ga (design thickness 0.0566")
 - Plywood/OSB-15/32" or thicker is recommended to assure an effective degree of fastener thread engagement.
 - METAL DECK - 22ga (design thickness 0.0283")

POSITIVE LOAD CHART WITH 6 SCREWS

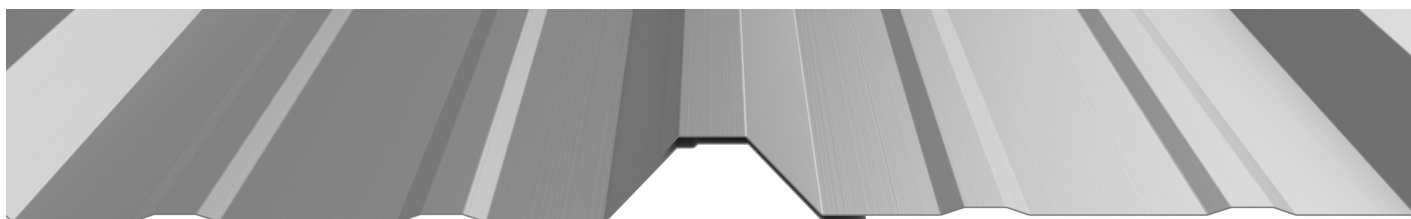
| SECTION PROPERTIES | | | | ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values) | | | | | | | | | | | | | | | | | | | |
|--------------------|--------|----|------|--|--|----------------------------------|----------------------------------|--|----------------------------------|---------------|-------|-------|-------|-------|------|------|------|------|------|--|--|--|--|
| | | | | Top in Compression | | | Bottom in Compression | | | Positive Load | | | | | | | | | | | | | |
| | | | | 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. | 2' | 2.5' | 3' | 3.5' | 4' | 4.5' | 5' | 5.5' | 6' | 8' | | | | |
| 36 | 26 | 80 | 0.85 | 0.0453 | 0.0399 | 0.0448 | 0.0267 | 0.0321 | 0.0391 | 192.3 | 153.8 | 128.2 | 109.9 | 96.1 | 77.2 | 62.6 | 51.7 | 43.4 | 24.4 | | | | |
| 36 | 24 | 50 | 1.19 | 0.0633 | 0.0555 | 0.0639 | 0.0363 | 0.0441 | 0.0553 | 191.4 | 153.1 | 127.6 | 109.4 | 86.4 | 68.3 | 55.3 | 45.7 | 38.4 | 21.6 | | | | |
| 36 | 22 | 50 | 1.51 | 0.0867 | 0.0761 | 0.0989 | 0.0500 | 0.0606 | 0.0751 | 306.4 | 245.1 | 204.2 | 153.3 | 117.3 | 92.7 | 75.1 | 62.1 | 52.2 | 29.3 | | | | |
| 36 | 0.032" | 19 | 0.52 | 0.0967 | 0.0967 | 0.0990 | 0.0967 | 0.0967 | 0.3023 | 40.4 | 32.3 | 26.9 | 23.1 | 20.2 | 17.9 | 16.2 | 14.7 | 13.5 | 10.1 | | | | |

- Theoretical section properties for Steel panel have been calculated per 2020 AISI S100 North America Specifications for the Design of Cold-Formed Steel Structural Member.
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FASTENER DIAGRAM (TESTED)



PANEL ATTACHMENT



Fastener Notes:

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- 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. Consult a licensed engineer.

SHEAR LOAD AND STIFFNESS CHART

Shear load test results for PBR panels at support spacing of 5' 0"

| Test No. | Ga. | Span (ft) | L (ft) | b (ft) | 0.4P _{max} (lb) | Shear Deflection Δ _n (in) | Max. Shear Load P _u (lb) | Ultimate Shear S _u (lb/ft) | Shear Stiffness G' (lb/in) |
|----------|-----|-----------|--------|--------|--------------------------|--------------------------------------|-------------------------------------|---------------------------------------|----------------------------|
| 1 | 26 | 5' 0" | 15.0 | 15.0 | 3145 | 0.155 | 7863 | 524.2 | 20292 |
| 2 | | | 15.0 | 15.0 | 3200 | 0.166 | 8000 | 533.3 | 19277 |
| Average | | | | | | | 7932 | 528.8 | 19784 |

Notes:

P_u = Maximum applied load in the cantilever beam test (lb)

P = 0.4P_u in the cantilever beam test (lb)

Δ_n = Net shear deflection of diaphragm (in) at 0.4P_u load

G' = Shear stiffness of the diaphragm as determined from test measurements

L = Length of diaphragm test frame = 15 ft

b = Depth of diaphragm test frame = 15 ft