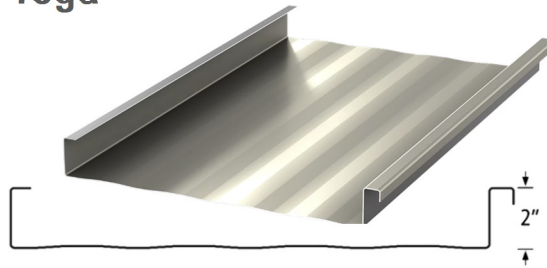


Steel Mech Seam on 16ga Purlins



Product Description

Mechanical seam panel with nominal 2" tall rib and maximum 18" coverage (24ga) or maximum 14" coverage (26ga)

Product Material

24ga or 26ga steel (min)

Corrosion resistant per FBC 1507.4.3 where required.

Fastener

#12 x 1.25-inch low profile fastener, (2) per clip
MC120310 sliding clip or similar, with 22ga top and
16ga base

Fasteners compliant with FBC 1506.6 where required.

Substrate/Deck

16ga Steel Purlins

Evaluated by:

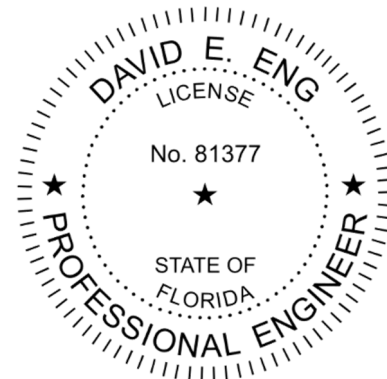
David Eng, PE

Timberlake Cove, LLC

1317 Edgewater Dr, Ste 2339 | Orlando FL

FL PE 81377 | FL CA 33344

www.TimberLakeCove.com



This item has been digitally signed and sealed by D.E. Eng, PE, on the date indicated. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

Maximum Allowable Loads & Installation Requirements:

This product approval covers 2 installation configurations. A factor of safety of 2 has been applied to all allowable uplift pressures shown.

26ga, 14" coverage (max), with 180° seam and (2) #12 fasteners per clip.

Clip spacing 60" o.c.: 26 PSF

Clip spacing 48" o.c.: 46.8 PSF

Clip spacing 36" o.c.: 67.6 PSF

Clip spacing 24" o.c.: 88.4 PSF

Clip spacing 12" o.c.: 109.3 PSF

Interpolation between clip spacing is permitted

24ga, 18" coverage (max), with 180° seam and (2) #12 fasteners per clip.

Clip spacing 60" o.c.: 36.4 PSF

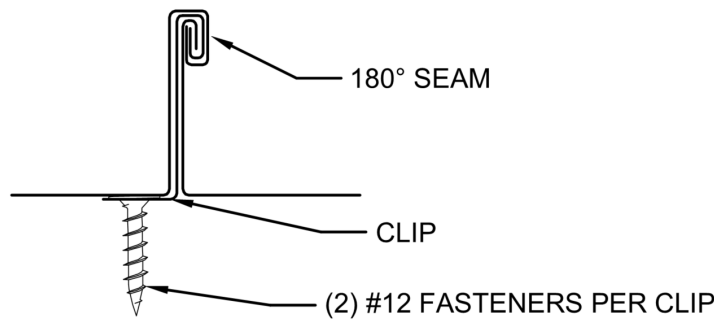
Clip spacing 48" o.c.: 61.1 PSF

Clip spacing 36" o.c.: 85.9 PSF

Clip spacing 24" o.c.: 110.6 PSF

Clip spacing 12" o.c.: 135.3 PSF

Interpolation between clip spacing is permitted



Underlayment: Not required per FBC 1507.1.1, exception 2.

Slope: Comply with local building code or FBC 1507.4.2 where required.

Technical Documentation:

This product has been tested by Force Engineering (TST5328) to the ASTM E1592 standard, reports 101-0051T-17A-D, as referenced in FL 22226.2-R2.

This product has been tested by F Force Engineering (TST5328) to the FM 4771 'Resistance to Foot Traffic' standard, reports 101-0051T-17E, as referenced in FL 22226.2-R2.

Compliance Statement:

This product as described has demonstrated compliance with Florida Building Code 2023, 1504.3.2 (**non-HVHZ**), as required by FL Rule 61G20-3, method 1D.

This product as described has been tested and demonstrated compliance with:

- ASTM E1592 – Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference
- FM 4471 – Resistance to Foot Traffic

Design Process:

Compare the maximum allowable loads on page 2 to the ASD uplift pressures for the project to determine sufficiency and installation requirements.

Alternatively, as an option, the load tables in this report provides one prescriptive option for the fastening requirement for the applicable wind loads for roofs within the parameters described. For roofs outside of the listed parameters, design wind loads shall be determined as required by FBC 1609, ASCE 7, or other design code in force, using allowable stress. These load tables are based on ASCE 7-22. Use of these tables assumes that the structure is: Enclosed and conforms to wind-borne debris provisions and is a regular shaped building and is not subject to across-wind loading, vortex shedding, or instability; nor does it have a site location for which channeling or buffeting warrant consideration

Engineering analysis may be completed by other licensed engineers for project specific approval by local authorities having jurisdiction.

Optional Load Tables:

These load tables are provided as a courtesy to provide one possible prescriptive option for a generic, typical structure without calculating the design pressures.

For structures outside the parameters of these load tables (e.g. height above 30 feet), calculate the required allowable design pressure and compare to the maximum allowable loads shown on page 2. These load tables shall not be construed to in any way limit the installation of this product to the cases shown.

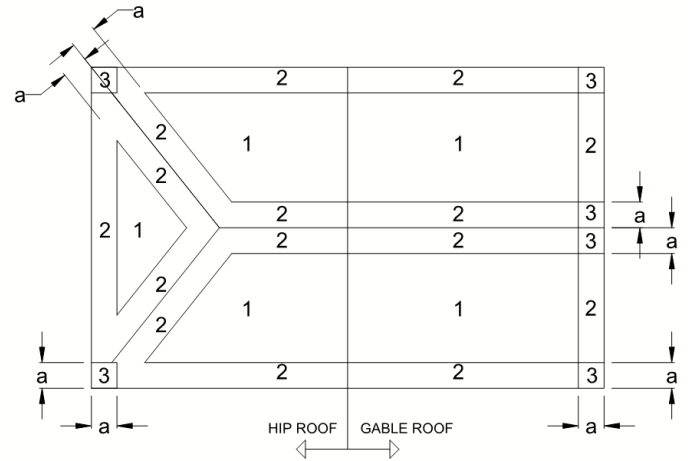
Contact the manufacturer for further information, or consult a licensed design professional.

Instructions:

Select the appropriate load table that applies to the structure in question.

Determine the design wind speed for the project location.

Use the attachment method indicated for that windspeed within each roof zone.



a: 10% OF LEAST HOIZONTAL DIMENSION OR 0.4h, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4% OF LEAST HORIZONTAL DIMENSION OR 3FT (0.9M), OR AS DETERMINED BY DESIGN OR OTHER APPLICABLE CODE.

ROOF ZONES FOR GENERIC BUILDING

Use this load table for structures which meet the following criteria:
 Are located in **Exposure B** area
 Have either a **flat roof, or gable/hip roof with max slope of 45° (±12:12)**
 Have a mean roof height of **30 feet or less**

FL42382.02: 26ga (min) Mech Seam on 16ga Purlins: 14"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	48"	48"	48"	48"	36"	36"	36"	24"	24"
Zone 2:	48"	48"	36"	36"	36"	24"	24"	12"	12"
Zone 3:	36"	36"	24"	24"	12"	12"	NR	NR	NR

Use this load table for structures which meet the following criteria:
 Are located in **Exposure B** area
 Have either a **hip roof with max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
 Have a mean roof height of **30 feet or less**

FL42382.02: 26ga (min) Mech Seam on 16ga Purlins: 14"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	48"	48"	48"	48"	48"	36"	36"	36"	24"
Zone 2:	48"	48"	36"	36"	36"	24"	24"	12"	12"
Zone 3:	48"	36"	36"	24"	24"	12"	12"	NR	NR

Use this load table for structures which meet the following criteria:
 Are located in **B, C, or D exposure** area
 Have either a **flat roof, or gable/hip roof with max slope of 45° (±12:12)**
 Have a mean roof height of **30 feet or less**

FL42382.02: 26ga (min) Mech Seam on 16ga Purlins: 14"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	36"	36"	36"	24"	24"	12"	12"	NR	NR
Zone 2:	36"	24"	24"	12"	NR	NR	NR	NR	NR
Zone 3:	24"	12"	NR	NR	NR	NR	NR	NR	NR

Use this load table for structures which meet the following criteria:
 Are located in **B, C, or D exposure** area
 Have either a **hip roof with max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
 Have a mean roof height of **30 feet or less**

FL42382.02: 26ga (min) Mech Seam on 16ga Purlins: 14"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	48"	36"	36"	36"	24"	24"	12"	12"	NR
Zone 2:	36"	24"	24"	12"	12"	NR	NR	NR	NR
Zone 3:	24"	24"	12"	NR	NR	NR	NR	NR	NR

Use this load table for structures which meet the following criteria:
 Are located in **Exposure B** area
 Have either a **flat roof, or gable/hip roof with max slope of 45° (±12:12)**
 Have a mean roof height of **30 feet or less**

FL42382.02: 24ga (min) Mech Seam on 16ga Purlins: 18"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	60"	60"	48"	48"	48"	48"	36"	36"	36"
Zone 2:	48"	48"	48"	48"	36"	36"	36"	24"	24"
Zone 3:	48"	48"	36"	36"	24"	24"	12"	12"	NR

Use this load table for structures which meet the following criteria:
 Are located in **Exposure B** area
 Have either a **hip roof with max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
 Have a mean roof height of **30 feet or less**

FL42382.02: 24ga (min) Mech Seam on 16ga Purlins: 18"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	60"	60"	60"	48"	48"	48"	48"	36"	36"
Zone 2:	60"	48"	48"	48"	36"	36"	36"	24"	24"
Zone 3:	48"	48"	48"	36"	36"	24"	24"	12"	12"

Use this load table for structures which meet the following criteria:
 Are located in **B, C, or D exposure** area
 Have either a **flat roof, or gable/hip roof with max slope of 45° (±12:12)**
 Have a mean roof height of **30 feet or less**

FL42382.02: 24ga (min) Mech Seam on 16ga Purlins: 18"
coverage (max)

Wind	120	130	140	150	160	170	180	190	200
Zone 1:	48"	48"	36"	36"	36"	24"	24"	12"	12"
Zone 2:	36"	36"	36"	24"	12"	12"	NR	NR	NR
Zone 3:	36"	24"	12"	12"	NR	NR	NR	NR	NR

Use this load table for structures which meet the following criteria:
 Are located in **B, C, or D exposure** area
 Have either a **hip roof with max slope of 45° (±12:12)**
or gable roof with slope between 27° and 45° (±6.1:12 - 12:12)
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Wind	120	130	140	150	160	170	180	190	200
Zone 1:	48"	48"	48"	36"	36"	24"	24"	24"	12"
Zone 2:	48"	36"	36"	24"	24"	12"	12"	NR	NR
Zone 3:	36"	24"	24"	12"	12"	NR	NR	NR	NR

Locations and Trade Names

This product is manufactured by Cornerstone Building Brands by one or more of the following brands, and is distributed under one or more the trade names shown below. Each brand maintains a variety of manufacturing facilities and trade names, to include the ones noted here. Contact the manufacturers listed for the most up-to-date list of locations serving the Florida market.



Corporate Headquarters
5020 Weston Parkway | Cary, NC 27513



1601 Rogers Road | Adel, GA 31620



Mech Seam

4020 SW 449 St | Horseshoe Beach, Florida 32648
6461 Topaz Court | Fort Myers, Florida 33966



1601 Rogers Rd | Adel, GA 31620



490 Oak Rd. | Ocala, FL 34472
3365 US Hwy. 41 South | Tifton, GA 31794

Certification of Independence:

David Eng, PE and Timberlake Cove, LLC do not have, nor will acquire a financial interest in any company manufacturing or distributing products under this evaluation. The same entities do not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

Exclusions and Limitations:

Design of deck and roof structure (to include deck attachment) shall be completed by others. Fire classification and shear diaphragm design are outside the scope of this evaluation. Accelerated weathering/salt spray is outside the scope of this evaluation. This report is limited to compliance with structural wind load requirements of FBC 1504.3.2, as required by Rule 61G20-3. Neither Timberlake Cove nor the manufacturer shall be responsible for any conclusions, interpretations, or designs made by others based on this evaluation report. This report is limited solely to documenting compliance with Rule 61G20-3, and makes no express or implied warranty regarding performance or suitability for use of this product. Installation shall be subject to the local building code and authority having jurisdiction; this report shall not be construed to supersede local codes in force.