

## 2.0" Mechanical Seam 24Ga Steel

24ga (min) 2.0" mechanical seam panel over 15/32" (min) plywood

**Metal Alliance, Inc**

2120 SW Poma Dr | Palm City FL 34990

Produced by Metal Alliance's Network of Approved Regional Manufacturers

### Product Description

Mechanical seam panel with an 18" maximum panel width and a nominal rib height of 2.0"

### Product Material

**24ga (min) steel**

24ga is nominally 0.0239" with yield strength of at least 50ksi, and shall be corrosion resistant per FBC 1507.4.3 where required.

### Fastener

**#10 1-inch pancake style fastener**

**Nominal 3" long x 1.5" tall 24ga clip, 2 fasteners per clip**

**Panel seamed to 90° seam**

Fasteners compliant with FBC 1506.6 where required.

### Substrate/Deck

**15/32" (min) plywood or**

**3/4" (min) thick wood plank (min S.G. of 0.42)**

**Evaluated by:**

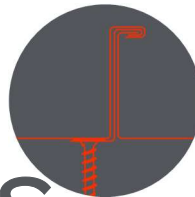
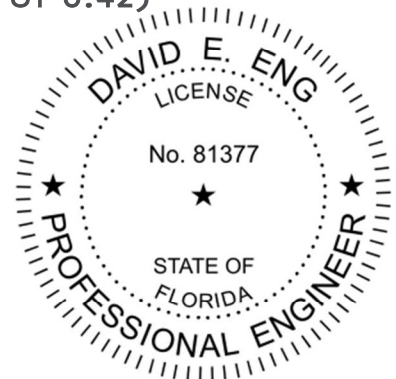
**David Eng, PE**

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**200MS**

**2.0" MECHANICAL SEAM 24GA**

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.

**Underlayment:** Comply with local building code or FBC 1507.1.1/1518.2 where required.

**Slope:** Comply with local building code or FBC 1507.4.2/FBC 1515.2 where required.

**Re-Roofing:** This panel may be installed over a single layer of existing shingles as permitted by local building code or FBC 1511/1521, provided the existing roof meets the conditions required by the applicable code.

**Fire Barrier:** Comply with FBC 1516.1 and 1516.2 where required.

**Maximum Allowable Loads & Installation Requirements:**

**Method A:** (2) #10 x 1" fasteners per clip with clips at 19" o.c. and 90° seam: **194.75 PSF**

**Method B:** (2) #10 x 1" fasteners per clip with clips at 9" o.c. and 90° seam: **228.5 PSF**

A factor of safety of 2 has been applied.

**Technical Documentation:**

This product has been tested to the TAS 125 / UL 580 standard by Intertek Testing (TST-1527), report J6507.01-450-44 R0 and to TAS 100 under report J6368.09-450-44 R0.

**Compliance Statement:**

This product as described has demonstrated compliance with Florida Building Code 2020, 1504.3.2 (non-HVHZ) and 1518.9.1/1523.6.5.2.4 (HVHZ), as required by FL Rule 61G20-3, method 1D.

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

- UL580 - Test for Uplift Resistance of Roof Assemblies
- UL 1897 - Uplift test for roof covering systems
- TAS 125 - Standard Requirements for Metal Roofing Systems
- TAS 100 - Wind and Wind-Driven Rain

**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 of this product.

**Design Process:**

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 7-16. Use of these tables assumes that the structure is:

- Enclosed and conforms to wind-borne debris provisions and is a regular shaped building
- 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.

**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.

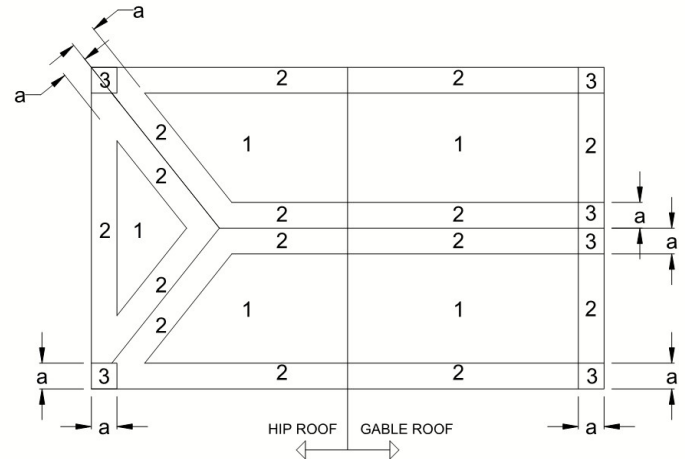
NOTE: ASCE 7-16 and FBC 2020 adopt a 7-zone concept. For the load tables below, the worst case was taken for each zone and reported using the standard zones 1-2-3:

Zone 1 includes zones 1 and 1'

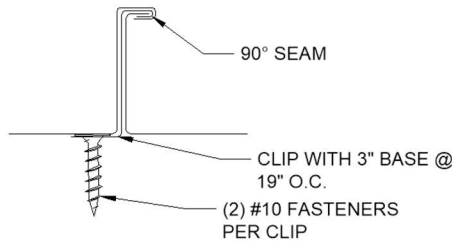
Zone 2 includes zones 2e, 2r, and 2n

Zone 3 includes zones 3e and 3r

Combining these zones creates a clear, simple scheme, at the expense of some design efficiency. Contact Metal Alliance Inc for further information or consult a licensed design professional.



a: 10% OF LEAST HORIZONTAL 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****METHOD A**

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°**

Have a mean Roof Height of **30 feet or less**

**FL31653.06: 24ga 200MS on 15/32" plywood**

Wind	105	110	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	A	A	A	A	A

Use this load table for structures which meet the following criteria:

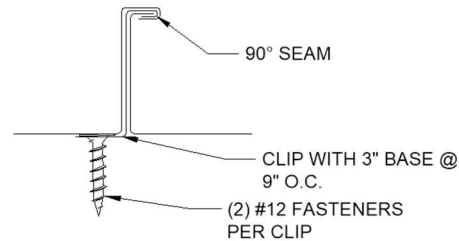
Are located in **Exposure B** area

Have either a **flat roof less than 7°, hip roof with max slope of 45°, or gable roof with slope between 20° and 45°**

Have a mean Roof Height of **30 feet or less**

**FL31653.06: 24ga 200MS on 15/32" plywood**

Wind	105	110	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	A	A	A	A	A

**METHOD B**

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°**

Have a mean Roof Height of **30 feet or less**

**FL31653.06: 24ga 200MS on 15/32" plywood**

Wind	105	110	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	A	A	A	B	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 less than 7°, hip roof with max slope of 45°, or gable roof with slope between 20° and 45°**

Have a mean Roof Height of **30 feet or less**

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Wind	105	110	120	130	140	150	160	170	180	190	200
Zone 1:	A	A	A	A	A	A	A	A	A	A	A
Zone 2:	A	A	A	A	A	A	A	A	A	A	A
Zone 3:	A	A	A	A	A	A	A	A	A	A	B