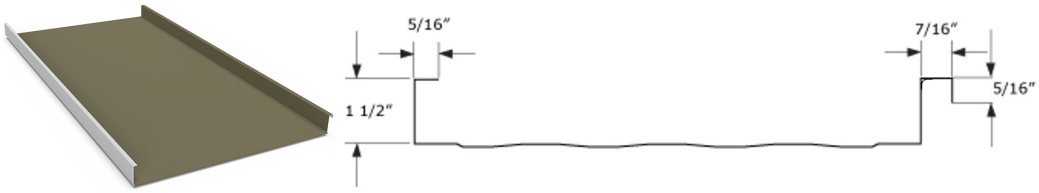
24GA 1.5" MECHANICAL SEAM ON PLYWOOD



Manufactured by: Metal Roofing Systems
PO Box 1534, Denver NC 28037, with production facilities around the United States.
www.metalroofingsystems.com

Product Description: Mechanical panel with a 16" maximum panel coverage and a nominal rib height of 1.5".

Product Material: 24ga (min) steel. *Corrosion resistant per FBC 1507.4.3 where required.*

Fastener: #10 fasteners. 158-FCU-24-G 6" 24ga fixed clip or equivalent (method A) or 158-FC-24-G 2" 24ga fixed clip or equivalent (method B). C*ompliant with FBC 1506.6 where required. Fasteners extend min ¼" through plywood.*

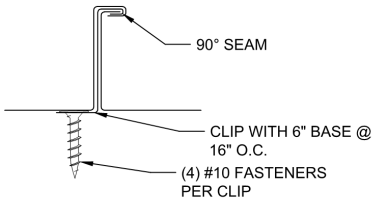
Substrate/Deck: 15/32" (min) plywood or ¾" (min) thick wood plank (min S.G. of 0.42).

Maximum Allowable Loads & Installation Requirements:

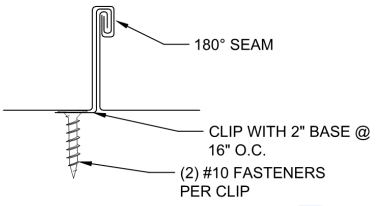
Method	Fastener & Clip	Clip Spacing	Panel Seam	Allowable Pressure
A	(4) #10 fasteners per 158-FCU-24-G clip 6" clip or equal	16"	90°	-82.5 psf
B	(2) #10 fasteners per 158-FC-24-G clip 2" clip or equal	16"	180°	-112.5 psf

A factor of safety of 2 has been applied.

METHOD A



METHOD B



David Eng, PE
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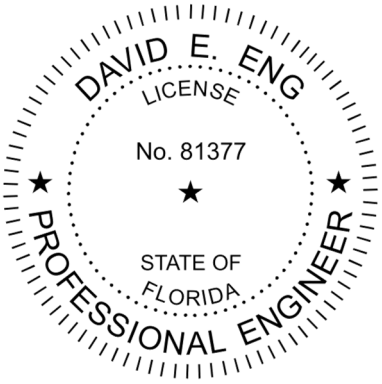
Digitally signed by David E Eng
Date: 2024.02.11 17:48:38-05'00'

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 where required.

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

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

Technical Documentation: This product has been tested to the UL 580 standard by PRI (TST-5878), report 217600012 as referenced in FL41654.10-R0.

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:

- UL580 – Test for Uplift Resistance of Roof Assemblies
- UL 1897 – Uplift test for roof covering systems

Design Process: Compare the maximum allowable loads on page 1 to the ASD uplift pressures for the project to determine sufficiency and installation requirements. Determine project uplift pressures using ASCE 7-22, FBC R301, project design documents, guidance from local building department, or other design professionals. Engineering analysis may be completed by other licensed engineers for project specific approval by local authorities having jurisdiction.

CERTIFICATION OF INDEPENDENCE: David Eng, PE and Timberlake Cove, LLC do not have, nor will they acquire a financial interest in any company manufacturing or distributing products under this evaluation. The same entities do not have, nor will they 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 attachment of plywood or wood plank) 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 strictly limited to documenting 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. 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.