

WOLTERS ENGINEERING

ENGINEERING, DRAFTING, CONSULTING

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PRODUCT EVALUATION

PRODUCT: BAKER METALS STRONGMAN 26 Ga. STEEL ROOF PANEL,
36" WIDE x 9/16" RIB HEIGHT, OVER 1/2" PLYWOOD (or)
5/8" PLYWOOD (or) 7/16" OSB with 1x4 WOOD BATTENS

MANUFACTURER: BAKER METAL WORKS & SUPPLY, Inc.
5846 HIGHWAY 189
BAKER, FL 32531

To all concerned,

The Baker Metals Strongman Roof Panel, manufactured by Baker Metal Works & Supply, is a non-structural 36" wide x 9/16" rib height 26 Ga. steel roof panel (60 ksi min) that meets the requirements of Section 1507.4 of the 8th Edition (2023) Florida Building Code. The panel has been tested per UL 580 and UL 1897 by Intertek B&C, with results shown in test reports P5116.07-450-18, P5116.08-450-18, and Q7711.06-450-18. It has also been tested per ASTM G155 by PRI Construction Materials Technologies, with results shown in test report 945T0004.

Technical Documentation:

1. Drawing "BSTM26S" dated 2/26/24 (Rev. 2), signed and sealed by Scott Wolters, PE.
2. Test Reports listed above by Intertek B&C. signed and sealed by Tanya Dolby, PE.
3. Test Reports listed above by PRI, signed and sealed by Zachary Priest, PE.
4. Supplemental Calculations to support BSTM26S, signed and sealed by Scott Wolters, PE.

I have reviewed this submittal per the requirements of FAC Product Approval Rule Chapter 61G20-3.005 (4). Based on the limitations listed below and those provided in the documents above, this product meets all of the requirements of the 8th Edition (2023) Florida Building Code generally, and chapter 15 specifically, for use outside of the High Velocity Hurricane Zone.

Limitations: This panel is approved for use outside of the HVHZ.

Overall Limitations:

Min. Slope:

1/2":12"

Note:

Slopes less than 3":12" require lap-sealant per FBC 1507.4

Max Panel Width:

36" (Nominal)

Min Rib Height:

9/16"

Min Fastener:

See Chart Below

Max. Fastener Spacing:

Along Panel:

See Chart Below

Across Panel:

3" (at Panel Lap)-6"-9"-9"-9"

Max. Design Pressure:

See Chart Below

Substrate and Fastener Type	Fastener Spacing: (along panel)	Max. Design Pressure
1/2" Plywood (15/32" 4-ply CDX, min) #9 x 1 1/2" HWH Fastener with Weather-Seal Washer	12" O.C.	-138.5 psf
	15" O.C.	-105.9 psf
	18" O.C.	-84.3 psf
	21" O.C.	-68.7 psf
	24" O.C.	-57.1 psf
	27" O.C.	-48.1 psf
	30" O.C.	-40.9 psf
	33" O.C.	-34.9 psf
	36" O.C.	-30 psf
5/8" Plywood (19/32" 4-ply CDX, min) #9 x 1 1/2" HWH Fastener with Weather-Seal Washer	12" O.C.	-138.5 psf
	15" O.C.	-113.7 psf
	18" O.C.	-97.2 psf
	21" O.C.	-85.5 psf
	24" O.C.	-76.6 psf
	27" O.C.	-69.7 psf
	30" O.C.	-64.3 psf
	33" O.C.	-59.7 psf
	36" O.C.	-56 psf
7/16" OSB with 1x4 Wood Battens (#2 SYP, min) #10 x 1 1/2" HWH Fastener with Weather-Seal Washer	12" O.C.	-236 psf
	15" O.C.	-200 psf
	18" O.C.	-176 psf
	21" O.C.	-158.9 psf
	24" O.C.	-146 psf
	27" O.C.	-136 psf
	30" O.C.	-128 psf
	33" O.C.	-121.5 psf
	36" O.C.	-116 psf

Underlayment: Minimum ASTM D 226 Type II, installed and anchored per FBC Section 1507.1.1.1 (2) or (3) (min).
(or)

Any underlayment with a valid FLPA or Miami-Dade NOA

Fire Barrier: Where required by code, install an approved fire barrier. Refer to a current fire directory listing for fire ratings of this roofing system assembly as well as the location of the fire barrier within the assembly. (See note #2 below)

Minimum Substrate: 1/2" (15/32" min) or 5/8" (19/32" min) 4-ply CDX Plywood, nailed to 2x rafters spaced 24" max. o.c, with 8d ring-shank nails spaced 6" o.c. (min).

(or)

7/16" OSB nailed to 2x rafters spaced 24" max o.c. with 8d ring-shank nails spaced 4" O.C, and 1x4 Wood Battens (#2 Southern Yellow Pine, min) fastened to the rafters with (2) #8 x 3" Torx Screws and nailed to OSB with 8d ring-shank nails, staggered at 6" O.C.

Other Limitations:

1. Roof slope must meet requirements of FBC Section 1507.4.2.
2. Fire classification is not a part of this evaluation. Refer to a current Approved Roofing Materials Directory for fire ratings of this product.
3. Design of substrate is by others and is not a part of this evaluation.
4. All panel system perimeters, penetrations, and transitions to be flashed and sealed per the manufacturer's installation instructions and RAS 133.

Re-Roofing:

The Baker Metals Strongman 26 Ga. Steel Roof Panel may be installed over a single layer of existing asphalt shingles, provided the existing roof meets the requirements of Section 1511 of the Florida Building Code.

If you have any questions or need more information concerning this approval, please contact me.

Thank you,


Scott Wolters
FL PE# 62354
MAR 06 2024

