

# WOLTERS ENGINEERING

ENGINEERING, DRAFTING, CONSULTING

15211 97<sup>th</sup> Road N  
West Palm Beach, FL 33412  
Ph/Fx: (561) 225-1982

## PRODUCT EVALUATION

PRODUCT: DIXIE SUPPLY 29 Ga. STEEL TUFF RIB ROOF PANEL,  
36" WIDE x 3/4" RIB HEIGHT, OVER 1/2" PLYWOOD (or)  
5/8" PLYWOOD (or) 7/16" OSB with 1x4 WOOD BATTENS

MANUFACTURER: DIXIE BUILDING SUPPLY, Inc.  
4906 HIGHWAY 45  
EIGHT MILE, AL 36613

To all concerned,

The Dixie Tuff Rib Roof Panel, manufactured by Dixie Building Supply, is a non-structural 36" wide x 3/4" rib height 29 Ga. steel roof panel (60 ksi min) that meets the requirements of Section 1507.4 of the 8<sup>th</sup> 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 R1523.07-450-34-R1, R1523.09-450-34-R1, and R1523.10-450-34-R1.

### Technical Documentation:

1. Drawing "DTRB29S" dated 3/6/24 (Rev. 1), 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 DTRB29S, 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 the requirements of the 8<sup>th</sup> 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:

2":12"

### Note:

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

Max Panel Width:

36" (Nominal)

Min Rib Height:

3/4"

Min Fastener:

See Chart Below

Max. Fastener Spacing:

Along Panel:

See Chart Below

Across Panel:

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

Max. Design Pressure:

See Chart Below

Max. Design Pressure:

See Chart Below

| Substrate and Fastener Type                                                                                                                            | Fastener Spacing (along panel) | Max. Design Pressure |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------|
| 1/2" Plywood<br>(15/32" 4-ply CDX, min)<br>(or)<br>5/8" Plywood<br>(19/32" 4-ply CDX, min)<br><br>#9 x 1 1/2" HWH Fastener<br>with Weather-Seal Washer | 12" O.C.                       | -146 psf             |
|                                                                                                                                                        | 15" O.C.                       | -125.8 psf           |
|                                                                                                                                                        | 18" O.C.                       | -112.6 psf           |
|                                                                                                                                                        | 21" O.C.                       | -102.6 psf           |
|                                                                                                                                                        | 24" O.C.                       | -95.3 psf            |
|                                                                                                                                                        | 27" O.C.                       | -89.7 psf            |
|                                                                                                                                                        | 30" O.C.                       | -85.2 psf            |
|                                                                                                                                                        | 33" O.C.                       | -81.5 psf            |
|                                                                                                                                                        | 36" O.C.                       | -78.5 psf            |
| 7/16" OSB with<br>1x4 Wood Battens<br>(#2 SYP, min)<br><br>#10 x 1 1/2" HWH Fastener<br>with Weather-Seal Washer                                       | 12" O.C.                       | -213.5 psf           |
|                                                                                                                                                        | 15" O.C.                       | -182 psf             |
|                                                                                                                                                        | 18" O.C.                       | -161 psf             |
|                                                                                                                                                        | 21" O.C.                       | -146 psf             |
|                                                                                                                                                        | 24" O.C.                       | -134.7 psf           |
|                                                                                                                                                        | 27" O.C.                       | -126 psf             |
|                                                                                                                                                        | 30" O.C.                       | -119 psf             |
|                                                                                                                                                        | 33" O.C.                       | -113.3 psf           |
|                                                                                                                                                        | 36" O.C.                       | -108.5 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 Dixie Supply 29 Ga. Steel Tuff Rib 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

