

WS RIM Board Rosboro

PR-L304 Revised November 2, 2024

Products: WS RIM Board

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1. Basis of the product report:

- 2024 International Building Code (IBC): Sections 104.2.3 Alternative materials
- 2021, 2018, and 2015 IBC: Section 104.11 Alternative materials
- 2024 International Residential Code (IRC): Sections R104.2.2 Alternative materials
- 2021, 2018, and 2015 IRC: Section R104.11 Alternative materials
- ANSI 117-2020 and ANSI 117-2015 recognized in the 2024 and 2021 IBC and IRC, and 2018 IBC and IRC, respectively
- ANSI/APA A190.1-2022, ANSI/APA A190.1-2017, and ANSI/APA A190.1-2012 recognized in the 2024 IBC and IRC, 2021 and 2018 IBC and IRC, and 2015 IBC and IRC, respectively
- 2021 and 2015 ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS) recognized in the 2024 and 2021 IBC, and 2018 and 2015 IBC, respectively
- ASTM D3737-18e1 and D3737-12, recognized in the 2024 and 2021 IBC and IRC, 2018 and 2015 IBC and IRC, respectively
- ASTM D7672-19, D7672-14e1, D7672-14, and D7672-12 recognized in the 2024 IBC and IRC, 2021 IBC and IRC, 2018 IBC and IRC, and 2015 IBC and IRC, respectively
- APA Report T2011P-58 and other qualification data

2. Product description:

Rosboro WS RIM is used as rim boards and is manufactured with a proprietary specification. The source laminations are made of 2x4 Douglas-fir lumber end-jointed to form a long length in accordance with ANSI A190.1. The laminations are then face bonded to a specific beam depth up to 14 inches. The glulam is then resawn into WS RIM with net finished thicknesses of 1-1/2 or 1-3/4 inches. The maximum depth of WS RIM is 14 inches.

3. Design properties:

Table 1 lists the allowable design properties for Rosboro WS RIM.

4. Product installation:

Rosboro WS RIM shall be installed in accordance with the recommendations provided by the manufacturer. Permissible field notching and drilling shall be in accordance with the recommendations provided by the manufacturer.

5. Fire-rated assemblies:

Design of fire-resistant exposed wood members in accordance with Chapter 16 of the National Design Specification for Wood Construction (NDS), Section 722.1 of the 2021, 2018, and 2015 IBC shall be applicable to Rosboro WS RIM. Fire-rated rim board assemblies shall be constructed in accordance with the recommendations provided by APA Data File: *APA Rim Board in Fire-Rated Assemblies*, Form D350 (www.apawood.org/resource-library) or the manufacturer.

Limitations:

a) Rosboro WS RIM shall be designed in accordance with the applicable code using the design properties specified in this report.

- b) Rosboro WS RIM shall be limited to 1-1/2 or 1-3/4 inches in thickness and a maximum of 14 inches in depth.
- c) Rosboro WS RIM shall be limited to applications where the rim board is continuously supported for the full length and thickness of the product without spanning an opening.
- d) Rosboro WS RIM is limited to dry service conditions where the average equilibrium moisture content of solid-sawn lumber is less than 16%.
- Rosboro WS RIM is produced by Rosboro facility in Eugene, Oregon, under a quality assurance program audited by APA.
- f) This report is subject to re-examination in one year.

7. Identification:

The WS RIM boards described in this report are identified by a label bearing the manufacturer's name and/or trademark (Rosboro), the APA assigned plant number (1007), the product grade, the APA logo, the report number PR-L304, and a means of identifying the date of manufacture.

Table 1. Allowable Design Properties for Rosboro WS RIM (a,b)

Product	Thickness (in.)	Horizontal Load	Vertical Load (e)			Lateral Desistance
		Transfer Capacity (lbf/ft) (c,d)	Uniform (lbf/ft)		Concentrated (lbf) (f)	Lateral Resistance for 1/2-inch-dia.
		Nails Spaced at 6 inches o.c.	Depths ≤ 11-7/8 in.	11-7/8 in. < Depth ≤ 14 in.	Depth ≤ 14 in.	Lag Screws (lbf) ^(g)
WS RIM	1-1/2 or 1-3/4	240	3,000	2,800	2,500	410

For SI: 1 inch = 25.4 mm, 1 lbf = 0.454 kg, 1 psi = 6.9 kPa.

- (a) The rim board depth shall not exceed 14 inches. Only permitted in applications where the rim board is continuously supported for the full length and thickness of the product.
- (b) All design values are applicable to the normal load duration (10 years) for wood products, except for the horizontal load transfer capacity, which is based on the short-term load duration (10 minutes). Design values shall be adjusted for other load durations in accordance with the applicable building code except that the uniform vertical load capacity and concentrated vertical load capacity are not permitted to be increased for any load durations shorter than the normal load duration (10 years). The horizontal load transfer capacity is permitted to be increased by a factor of 1.4 when subjected to wind loads. Toenailed connections are not limited by the 150 lbf/ft lateral load capacity noted for Seismic Design Categories D, E, and F in Section 4.1.10 of the 2021 SDPWS, and Section 4.1.7 of the 2015 and 2008 SDPWS.
- (c) Rosboro WS RIM shall be permitted to be substituted for solid-sawn framing in horizontal wood diaphragms as shown in Table 4.2A of the SDPWS, provided the maximum shear values for the diaphragms are limited to the allowable lateral capacity noted in this table.
- (d) 8d common (0.131 x 2-1/2 inches) nails shall be used to connect the floor sheathing to Rosboro WS RIM and to connect Rosboro WS RIM to the sill plate (toe-nail). Two 8d box (0.113 x 2-1/2 inches) or common (0.131 x 2-1/2 inches) nails are required to connect each floor joist to the sill plate, and two 8d box (0.113 x 2-1/2 inches) or common (0.131 x 2-1/2 inches) nails are required to connect Rosboro WS RIM to the end of each floor joist.
- (e) Compression perpendicular-to-grain capacities of the sill plate and floor sheathing must be checked and must not be exceeded.
- (f) The concentrated vertical load capacity is based on a 4-1/2-inch bearing length.
- (g) Capacity of lag screw connections between rim board and deck ledgers per lag screw of 1/2 inch in diameter when installed into the face of the WS RIM, 2x spruce-pine-fir side member, and 1/2-inch-thick sheathing with full penetration of the WS RIM of the lag screw. Minimum end distance of 4 inches is required.

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