

Rosboro X-Rim+ and X-Rim FRT
Rosboro

PR-L336

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Products: Rosboro X-Rim+ and X-Rim FRT
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1. Basis of the product report:
 - 2021, 2018, 2015, and 2012 International Building Code (IBC): Sections 104.11 Alternative materials and 2303.2 Fire-retardant-treated wood
 - 2021, 2018, 2015, and 2012 International Residential Code (IRC): Sections R104.11 Alternative materials and R802.1.5 (R802.1.3 for the 2012 IRC) Fire-retardant-treated wood
 - ANSI 117-2020 and ANSI 117-2015 recognized in the 2021 IBC and IRC, and 2018 IBC and IRC, respectively
 - ANSI A190.1-2022 Product Standard for Structural Glued Laminated Timber
 - ANSI A190.1-2017, ANSI A190.1-2012, and ANSI/AITC A190.1-2007 recognized in the 2021 and 2018 IBC and IRC, 2015 IBC and IRC, and 2012 IBC and IRC, respectively
 - ANSI/APA PRR 410-2021 Standard for Performance-Rated Engineered Wood Rim Boards
 - 2021 ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS)
 - ASTM D3737-18e1, D3737-12, and D3737-08 recognized in the 2021 IBC and IRC, 2018 and 2015 IBC and IRC, and 2012 IBC and IRC, respectively
 - ASTM D7672-14e1, D7672-14, and D7672-12 recognized in the 2021 IBC and IRC, 2018 IBC and IRC, and 2015 IBC and IRC, respectively
 - APA Report T2021P-16 and other qualification data
2. Product description:

Rosboro X-Rim+ is used as rim boards and is manufactured with a layup combination of Douglas fir-Larch in accordance with ANSI 117 and ANSI A190.1. Rosboro X-Rim FRT is Rosboro X-Rim+ treated with a fire retardant after gluing by Hoover Treated Wood Products, Inc. under the direction of Rosboro using a proprietary pressure impregnation process with qualifying UL stamps. Rosboro X-Rim FRT is limited to Use Category UCFA Interior in accordance with AWPA Standard U1. The efficacy of the fire-retardant treatment, and post-treatment inspection and quality assurance of the treatment are outside the scope of this report and the APA certification program. The thicknesses of Rosboro X-Rim+ and X-Rim FRT are 3-1/2 inches and 5-1/2 inches with a maximum depth of 18 inches. Rosboro X-Rim+ and X-Rim FRT meet or exceed the allowable design properties for Grade A of ANSI/APA PRR 410.
3. Design properties:

Table 1 lists the allowable rim board design properties for Rosboro X-Rim+ and X-Rim FRT. Allowable design properties other than the allowable rim board design properties for Rosboro X-Rim+ shall be obtained from Rosboro and ANSI 117, while the allowable design properties other than the allowable rim board design properties for Rosboro X-Rim FRT shall be obtained from the fire-retardant treater after consultation with APA Technical Topics TT-127: *Fire-Retardant-Treated Structural Glued Laminated Timber* (www.apawood.org/resource-library).

4. Product installation:
Rosboro X-Rim+ and X-Rim FRT shall be installed in accordance with the recommendations provided by Rosboro and the fire-retardant treater, respectively. Permissible field notching and drilling shall be in accordance with the recommendations provided by Rosboro and the fire-retardant treater, as applicable.
5. Fire-rated assemblies:
The provisions of 2021, 2018, and 2015 IBC Section 722 Calculated fire resistance, and 2012 IBC Section 722.6.3 Design of fire-resistant exposed wood members shall be applicable to Rosboro X-Rim+ and X-Rim FRT. APA Technical Topics TT-124: *Uniform Vertical Load Capacity of Glulam Rim Boards Subject to Fire Exposure* (see link above) shall be applicable to Rosboro X-Rim+ and X-Rim FRT. Fire-rated rim board assemblies shall be constructed in accordance with the recommendations provided by Rosboro and the FRT treater, as applicable.
6. Limitations:
 - a) Rosboro X-Rim+ and X-Rim FRT shall be designed for rim board applications in accordance with the applicable code using the design properties specified in this report.
 - b) Rosboro X-Rim+ and X-Rim FRT shall be limited to 3-1/2 or 5-1/2 inches in thickness and a maximum of 18 inches in depth.
 - c) Rosboro X-Rim+ allowable rim board design values are intended for applications where the rim board is permitted to span an opening based on design properties of the glulam layup combination contained in the APA trademark for the rim board product.
 - d) Rosboro X-Rim FRT allowable rim board design values are intended for applications where the rim board is continuously supported for the full length and thickness of the product without spanning an opening.
 - e) Rosboro X-Rim FRT shall not be used in roof applications or where the in-service temperature is expected to exceed 100°F.
 - f) Rosboro X-Rim FRT is limited to dry service conditions where the average equilibrium moisture content of solid-sawn lumber is less than 16%.
 - g) Face nails shall be installed to connect Rosboro X-Rim+ or X-Rim FRT to the sill plate or the top of the double bottom plates, as shown in Figure 1. Alternative installations shall be obtained from Rosboro or the fire-retardant treater, as applicable.
 - h) Rosboro X-Rim+ and X-Rim FRT shall not be resized for depth or thickness (width). Field modifications (i.e., cuts, notches, planing..., etc.) to the rim board depth or thickness (width) shall not be permitted unless specifically approved by Rosboro and the treater, as applicable.
 - i) Rosboro X-Rim+ and X-Rim FRT shall be permitted to be labeled with ANSI/APA PRR 410-2021 Grade A when the rim board meets the depth requirements of Sections 4.2.1 and 4.2.2 and is labeled in accordance with Section 7.3.2(g) of the standard.
 - j) Rosboro X-Rim+ and X-Rim FRT are produced at the Rosboro facilities in Springfield, OR, and Veneta, OR, under a quality assurance program audited by APA.
 - k) The efficacy of the FRT treatment, and overall post-treatment inspection and quality assurance program is certified by Hoover Treated Wood Products, Inc. and its third-party inspection agency, UL, LLC.
 - l) This report is subject to re-examination in one year.
7. Identification:
Rosboro X-Rim+ and Rosboro X-Rim FRT described in this report shall be identified by a label bearing the manufacturer's name and/or trademark (Rosboro), the APA assigned plant number (1001 for Springfield or 1078 for Veneta), the product name (Rosboro X-Rim+ or Rosboro X-Rim FRT), the approved glulam layup combination, the APA logo, the report number PR-L336, and a means of identifying the date of manufacture. Rosboro X-Rim FRT described in this report shall be identified in the same manner as Rosboro X-Rim+ and further identified by a label bearing the name of the treater and the inspection agency in

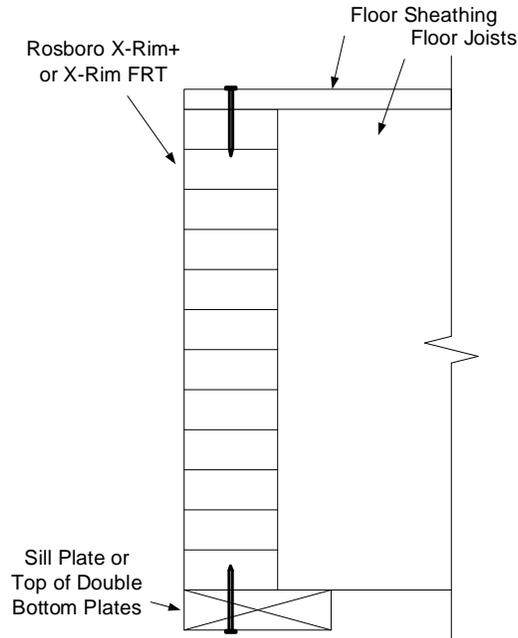
accordance with Section 2303.2.4 of the IBC, R802.1.5.4 of the 2021, 2018, and 2015 IRC, and Section R802.1.3.4 of the 2012 IRC.

Table 1. Allowable Design Properties for Rosboro X-Rim+ and X-Rim FRT^(a,b,c)

Product	Thickness (in.)	Horizontal Load Transfer Capacity (lbf/ft) ^(d,e)	Vertical Load		Lateral Resistance for 1/2-inch-dia. Lag Screws (lbf) ^(h)
			Uniform (lbf/ft) ^(f)	Concentrated (lbf) ^(f,g)	
		Nails Spaced at 6 inches o.c.	Depths ≤ 18 in.	Depth ≤ 18 in.	
Rosboro X-Rim+ or X-Rim FRT	3-1/2	300	6,500	7,000	410
	5-1/2		8,500	9,000	

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 18 inches. Rosboro X-Rim FRT is intended for applications where the rim board is continuously supported for the full length and thickness of the product.
- (b) Rosboro X-Rim FRT shall not be used in roof applications or where the in-service temperature is expected to exceed 100°F.
- (c) 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.
- (d) Rosboro X-Rim+ and X-Rim FRT may 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.
- (e) 8d common (0.131 x 2-1/2 inches) nails shall be used to connect the floor sheathing to Rosboro X-Rim+ or X-Rim FRT and to connect Rosboro X-Rim+ or X-Rim FRT to the sill plate (**face nail, as shown in Figure 1**). 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 X-Rim+ or X-Rim FRT to the end of each floor joist (**slant nail**).
- (f) Compression perpendicular-to-grain capacities of the sill plate and floor sheathing must be checked and must not be exceeded.
- (g) The concentrated vertical load capacity is based on a 4-1/2-inch bearing length.
- (h) 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 Rosboro X-Rim+ or X-Rim FRT, 2x spruce-pine-fir side member, and 1/2-inch-thick sheathing with a full penetration of the Rosboro X-Rim+ or X-Rim FRT of the lag screw. Minimum end distance of 4 inches is required.



Fasteners used with Rosboro X-Rim FRT shall comply with the recommendation provided by the FRT treater

Figure 1. Face nail connection between Rosboro X-Rim+ or X-Rim FRT and the sill plate.

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