

Zip-Rim
Zip-O-Laminators, LLC

PR-L338

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Products: Zip-Rim

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1. Basis of the product report:
 - 2021, 2018, 2015, and 2012 International Building Code (IBC): Sections 104.11 Alternative materials
 - 2021, 2018, 2015, and 2012 International Residential Code (IRC): Sections R104.11 Alternative materials
 - 2021 ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS)
 - ANSI 117-2020 and ANSI 117-2015 recognized in the 2021 IBC and IRC, and 2018 IBC and IRC, respectively
 - 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
 - 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
 - APA Report T2021P-28 and other qualification data
2. Product description:

Zip-Rim is a glulam rim board manufactured using a layup combination in accordance with ANSI 117 and ANSI A190.1 and then resawn to a specific thickness without re-grading. The thickness of Zip-Rim is 1-1/2 inches with the maximum depth of 11-7/8 inches.
3. Design properties:

Table 1 lists the allowable rim board design properties for Zip-Rim. The allowable design properties other than the rim board design properties for Zip-Rim shall be obtained from the manufacturer.
4. Product installation:

Zip-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:

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 Zip-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.
6. Limitations:
 - a) Zip-Rim shall be designed for rim board applications in accordance with the applicable code using the design properties specified in this report.
 - b) Zip-Rim shall be limited to 1-1/2 inches in thickness and a maximum of 11-7/8 inches in depth.

- c) Zip-Rim 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.
 - d) Zip-Rim is limited to dry service conditions where the average equilibrium moisture content of solid-sawn lumber is less than 16%.
 - e) Zip-Rim 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 the manufacturer.
 - f) Zip-Rim is produced at the Zip-O-Laminators' Eugene , Oregon facilities under a quality assurance program audited by APA.
 - g) This report is subject to re-examination in one year.
7. Identification:
Zip-Rim described in this report shall be identified by a label bearing the manufacturer's name and/or trademark (Zip-O-Laminators), the APA assigned plant number (1120), the product standard (ANSI A190.1), the product grade, the APA logo, the report number PR-L338, and a means of identifying the date of manufacture.

Table 1. Allowable Design Properties for Zip-Rim ^(a,b)

Product	Thickness (in.)	Horizontal Load Transfer Capacity (lb/ft) ^(c,d)	Vertical Load ^(e)		Lateral Resistance for 1/2-inch-dia. Lag Screws (lb) ^(g)
			Uniform (lb/ft)	Concentrated (lb) ^(f)	
		Nails Spaced at 6 inches o.c.	Depths ≤ 11-7/8 in.	Depth ≤ 11-7/8 in.	
Zip-Rim	1-1/2	225	3,550	3,250	425

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 11-7/8 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. Toe-nailed 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) Zip-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 Zip-Rim and to connect Zip-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 Zip-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 Zip-Rim, 2x spruce-pine-fir side member, and 1/2-inch-thick sheathing with a full penetration of the Zip-Rim of the lag screw. Minimum end distance of 4 inches is required.

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