

Rim Board Products Acceptable for Use with TJI® Joists

Rim board products must meet strict manufacturing and testing requirements for use with I-joists in platform-framed construction. Most wood products do not meet the requirements for dimensional compatibility with I-joists throughout the life of the structure and many have not been evaluated for the structural demands of rim board applications. This document provides guidance regarding rim board products acceptable for use with Weyerhaeuser's TJI® joists.

Weyerhaeuser Policy

Only products that have been specifically evaluated and/or certified for rim board applications in accordance with Table 1 or which are otherwise expressly approved in Weyerhaeuser literature, are permitted for use as rim board with TJI® joists. The use of TJI® joists in conjunction with rim board products that do not meet these requirements will void the [Trus Joist® TJI® Joist Limited Lifetime Warranty](#).

TABLE 1: WEYERHAEUSER/INDUSTRY REQUIREMENTS FOR RIM BOARD PRODUCTS FOR USE WITH I-JOISTS

Product	Requirement
SCL, OSB, or Plywood Rim	Manufactured, certified, and marked in accordance with ANSI/APA PRR 410-2021 or Evaluated ^[1] in accordance with ASTM D7672
I-joist used as Rim ^[2]	Evaluated ^[1] in accordance with ASTM D7672
Glulam Rim ^[3]	Manufactured, certified, and marked in accordance with ANSI/APA PRR 410-2021* d ≤ 14 in. requires 3/16 in. oversize d > 14 in. requires job-specific fabrication with oversize determined after consultation with designer of record * Weyerhaeuser is unaware of any glulam rim board products meeting these requirements
Sawn Lumber Rim	Not Permitted

[1] Evaluation by accredited certification agency with a corresponding evaluation report including design information for use of the product as rim board.

[2] Certification of I-joists as rim board under ANSI/APA PRR 410-2021 is not permitted.

[3] Recognition of glulam rim board based on ASTM D7672 is not permitted.

This policy does not prohibit the use of TJI® joists with nonconforming rim board products in applications where the TJI® joists hang from rim board flush to inside face of the wall framing. However, hanging joists from the side of rim board products placed on top of a wall may result in the formation of an unstable hinge at the top of the wall under out-of-plane loads that the designer of record must consider and address.

Background

The International Building Code (IBC) and International Residential Code (IRC) require that "Engineered wood rim boards shall conform to ANSI/APA PRR 410 or shall be evaluated in accordance with ASTM D7672."

ASTM D7672

ASTM D7672 *Standard Specification for Evaluating Structural Capacities of Rim Board Products and Assemblies* includes provisions for rim board products manufactured from structural composite lumber (SCL), oriented strand board (OSB), plywood, and I-joists. Sawn lumber and glulam rim boards are excluded from the scope of ASTM D7672 due to concerns with dimensional compatibility, as explained in D7672 Section X4.3.

ANSI/APA PRR 410-2021

The scope of ANSI/APA PRR 410-2021 *Standard for Performance-Rated Engineered Wood Rim Boards* includes provisions for rim board products manufactured from wood structural panels, glulam, and SCL. For glulam rim board products, ANSI/APA PRR 410-2021 requires special sizing and marking to address the expected shrinkage of glulam rim board products after manufacturing as follows:

- Section 4.2.1 requires glulam rim boards up to 14 inches in depth to be oversized by a minimum of 3/16 in. greater than the nominal depth.

- Section 4.2.2 requires glulam rim boards deeper than 14 in. to be sized based on consideration of as-manufactured moisture content and job-specific moisture conditions after consultation with the designer of record.
- Section 7.3.2(g) requires glulam rim board to be labeled “Do not resize the depth” to prevent installers from ripping or planing the edge at the time of installation.

Wood I-Joist Manufacturers Association Position

Weyerhaeuser’s policy regarding rim board products acceptable for use with TJI® joists as set forth in this document is consistent with the position of the Wood I-Joist Manufacturers Association (WIJMA). WIJMA position statement [Rim Board Products for Use with Wood I-joists](#) provides a detailed explanation of the functions of rim board and identifies suitable and unsuitable rim board products for use with I-joists.

Figure 1 below illustrates the primary concern with products that are not the proper height at time of installation or are expected to shrink vertically while in service, including sawn lumber and glulam rim boards not certified to ANSI/APA PRR 410-2021.

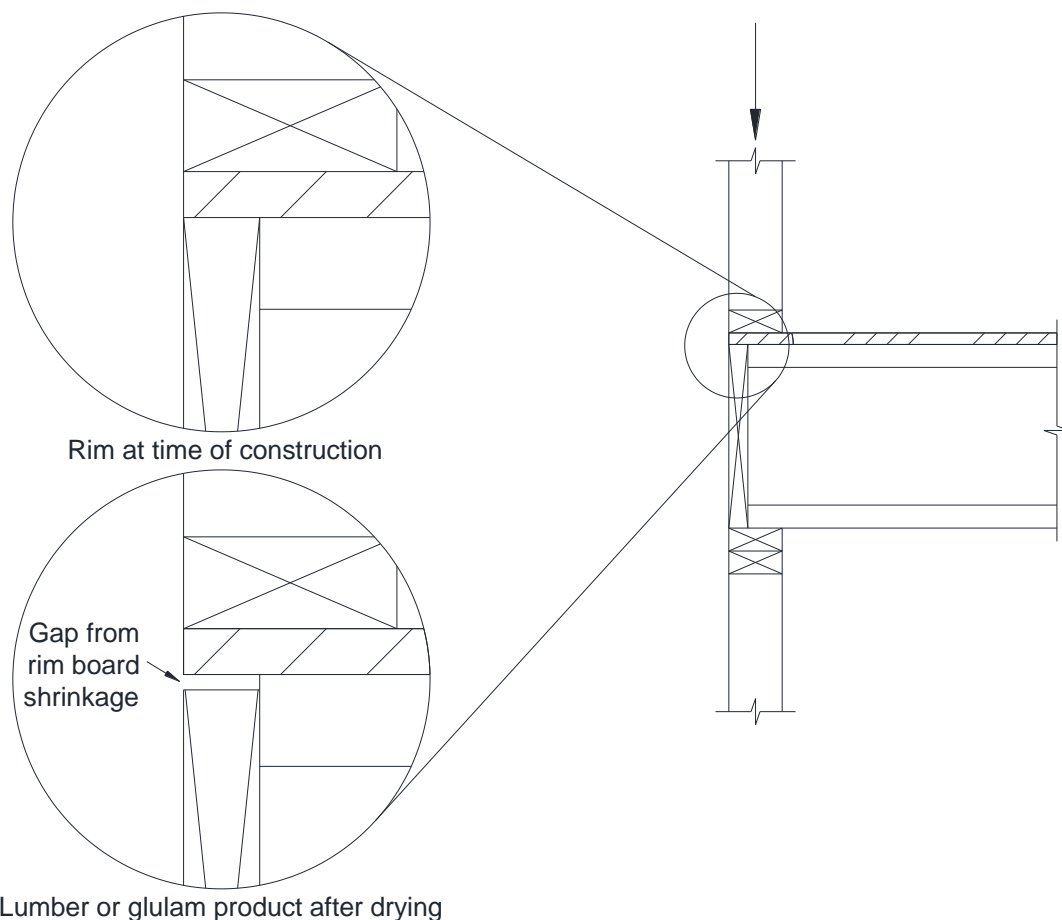


Figure 1 Gap caused by shrinkage of lumber or glulam product can compromise vertical load capacity leading to crushing or buckling of the I-joists and can compromise lateral load transfer capacity (courtesy of WIJMA).