

NORDIC SOLUTIONS FOR FIRE RESISTANT FLOORS

in compliance with the International Residential Code

EXTRACT OF THE INTERNATIONAL RESIDENTIAL CODE 2015:

R302.13 Fire protection of floors. Floor assemblies that are not required elsewhere in this code to be fire-resistance rated, shall be provided with a 1/2-inch gypsum wallboard membrane, 5/8-inch wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

EXCEPTIONS:

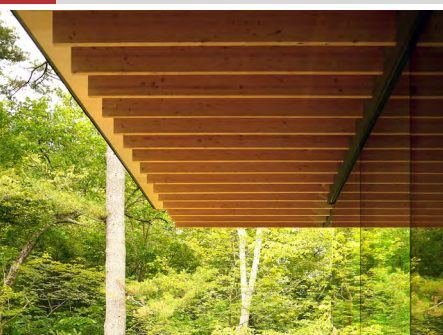
1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions of floor assemblies can be unprotected when complying with the following:
 - 3.1. The aggregate area of the unprotected portions shall not exceed 80 square feet per story.
 - 3.2. Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

OPTIONS WITH NORDIC I-JOISTS:

Nordic I-Joist Fire Resistant Floors. Provide prescriptive fire assemblies for fire protection of floors constructed with Nordic I-joists when the 2012 IRC Section R501.3 or 2015 IRC Section R302.13 requirements are adopted by the local jurisdiction.

- 1) 1/2-inch gypsum board attached to bottom of flange
- 2) 1/2-inch gypsum board attached directly to web
- 3) 1/2-inch gypsum board attached directly to sides of flange
- 4) Mineral wool insulation
- 5) Ceramic fiber blanket insulation

* See details next page and refer to APA System Report SR-405 for more information.



OPTION WITH NORDIC LAM JOIST:

Nordic Lam Joist Fire Resistant Floors. Nordic Lam glued-laminated timber joist achieves equivalent fire performance as dimension lumber, eliminating the need for sprinklers, gypsum board, mineral wool or ceramic fiber blanket insulation.

- Use Nordic Lam 13F-1.7E glulam joists. Be different. Be competitive.
- 1-1/2-inch thickness with IJC depths. Lengths available up to 48 feet.



FSC-CERTIFIED PRODUCTS AVAILABLE



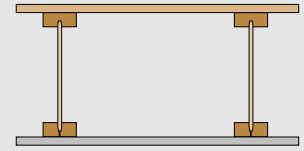
The mark of responsible forestry

OPTIONS WITH NORDIC I-JOIST



1 1/2-INCH GYPSUM BOARD ATTACHED TO BOTTOM OF FLANGE

Install 1/2-inch gypsum board or 5/8-inch wood structural panel underneath I-joists in accordance with the 2012 and 2015 IRC. Not required to be finished with tape and joint compound, or wood filler.



2 1/2-INCH GYPSUM BOARD ATTACHED DIRECTLY TO WEB

Install 1/2-inch gypsum board the entire length of I-joist on both sides of web (not required to be finished with tape and joint compound).



3 1/2-INCH GYPSUM BOARD ATTACHED DIRECTLY TO SIDES OF FLANGE

Install 1/2-inch gypsum board the entire length of I-joist on both sides of flanges (not required to be finished with tape and joint compound).



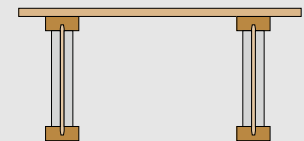
4 MINERAL WOOL INSULATION

Install mineral wool insulation the entire length of I-joist with minimum 2.0 lbf/ft³ (nominal) and 3 inches thick installed with stay wires, spaced no more than 24 inches apart.



5 CERAMIC FIBER BLANKET INSULATION

Install FireBreak proprietary ceramic fiber blanket insulation the entire length of I-joist with minimum 4.0 lb/ft³ (nominal) and 3/4 inch thick full width, filling the web space with no gaps.

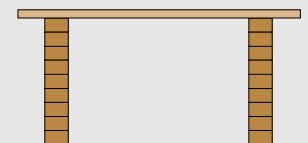


NOTE: Penetrations or openings for ducts, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted. For more information on these fire assemblies, refer to APA System Report SR-405. For sprinkler installation for APA Performance Rated I-Joists, refer to APA Technical Note H730. Both documents are available for free download (www.apawood.org/resource-library).

OPTION WITH NORDIC LAM JOIST



Nordic Lam floor joists are made of glued-laminated timber of 13F-1.7E stress grade. They are 1-1/2-inch width and available in I-joist compatible depths, covering a wide range of applications. This product is equivalent to dimension lumber in terms of fire resistance and can therefore be used as an additional option, without any further requirements. Moreover, Nordic Lam joists are much stronger than dimension lumber of the same dimensions, resulting in longer spans and/or wider spacings.



NOTE: For more information on this product, refer to Nordic Lam Glulam Joists, N-U225, available for free download (<http://nordic.ca/en/documentation/technical-documents/n-u225>).



Sustainable Wood Solutions

HEAD OFFICE AND TECHNICAL SERVICES

info@nordicewp.com • www.nordicewp.com

T. 514.871.8526 • F. 514.871.9789