



Fire Protection of Wood Floor Assemblies

Section 302.13 2015 IRC. Fire protection of floors.

Floor assemblies shall be provided with a ½-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:
 - a. The aggregate area of the unprotected portions shall not exceed 80 square feet per story
 - b. Fire blocking in accordance with Section 302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
 - i. Fireblocking materials.
 1. Two-inch nominal lumber.
 2. Two thicknesses of 1-inch nominal lumber with broken lap joints.
 3. One thickness of 23/32-inch wood structural panels with joints backed by 23/32-inch wood structural panels.
 4. One thickness of ¾-inch particleboard with joints backed by ¾-inch particleboard.
 5. One-half-inch gypsum board.
 6. One-quarter-inch cement-based millboard.
 7. Batts or blankets of mineral wool or glass fiber or other approved materials installed in such a manner as to be securely retained in place.
 8. Cellulose insulation installed as tested for the specific application.
4. Approved floor assemblies demonstrating equivalent fire performance by an approved testing company showing length and time duration for exposure to fire. It shall be defined by performance equivalent to twenty-six (26) minutes using ASTM E 119 standard fire endurance testing with a superimposed load simulating a maximum load condition (i.e. 100% design load).