



Fireblocking – Per 2012 IRC Building Code

R302.11 Fireblocking: In combustible construction, fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and roof space.

Fireblocking shall be provided in wood-frame construction in the following locations:

1. In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs as follows:
 - 1.1 Vertically at the ceiling and floor levels
 - 1.2 Horizontally at intervals not exceeding 10 feet (3048 mm)
2. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
3. In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall comply with Section R302.7
 - a. **Section R302.7 Under-stair protection:** Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with ½" (12.7 mm) gypsum board
4. At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an *approved* material to resist the free passage of flame and products of combustion. The material filling this annular space shall not be required to meet the ASTM E 136 Requirements.
5. For the fireblocking of chimneys and fireplaces, see Section R1003.19
 - a. **Section R1003.9 Termination:** Chimneys shall extend at least 2 feet (610 mm) higher than any portion of a building within 10 feet (3048 mm), but shall not be less than 3 feet (914 mm) above the highest point where the chimney passes through the roof.
 - i. **R1003.9.1 Chimney caps:** Masonry chimneys shall have a concrete, metal or stone cap, sloped to shed water, a drip edge and a caulked bond break around any flue liners in accordance with ASTM C 1283
 - ii. **R1003.9.2 Spark arrestors:** Where a spark arrestor is installed on a masonry chimney, the spark arrestor shall meet all of the following requirements.
 1. The net free area of the arrestor shall not be less than four times the net free area of the outlet of the chimney flue it serves
 2. The arrestor screen shall have heat and corrosion resistance equivalent to 19-gage galvanized steel or 24-gage stainless steel
 3. Openings shall not permit the passage of spheres have a diameter greater than ½" (13 mm) nor the passage of spheres having a diameter less than 3/8" (10 mm)



4. The spark arrestor shall be accessible for cleaning and the screen or chimney cap shall be removable to allow for cleaning of the chimney flue.
- iii. **R1003.9.3 Rain caps:** Where a masonry or metal rain cap is installed on a masonry chimney, the net free area under the cap shall not be less than four times the net free area of the outlet of the chimney flue it serves.
6. Fireblocking of cornices of a two-family *dwelling* is required at the line of *dwelling unit* separation.

R302.11.1 Fireblocking materials: Except as provided in R302.11, Item 4, fireblocking shall consist of the following materials

1. Two-inch (51 mm) nominal lumber
2. Two thicknesses of 1-inch (25.4 mm) nominal lumber with broken lap joints
3. One thickness of 23/32-inch (18.3 mm) wood structural panels with joints backed by 23/32-inch (18.3 mm) wood structural panels
4. One thickness of 3/4-inch (19.1 mm) particleboard with joints backed by 3/4-inch (19.1 mm) particleboard
5. One-half-inch (12.7 mm) gypsum board
6. One-quarter-inch (6.4 mm) 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

R302.11.1.1 Batts or blankets of mineral or glass fiber: Batts or blankets of mineral or glass fiber or other *approved nonrigid* materials shall be permitted for compliance with the 10-foot (3048 mm) horizontal fireblocking in walls constructed using parallel rows of studs and staggered studs

R302.11.1.2 Unfaced fiberglass: Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically. When piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction

R302.11.1.3 Loose-fill insulation material: Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.

R302.11.2 Fireblocking integrity: The integrity of all fireblocks shall be maintained.

FOAM IS NOT AN ALLOWABLE FIREBLOCK