

**Oregon**  
**Interpretive Ruling No. 93-15**  
(Revised July 10, 1995)  
**BATT AND LOOSE-FILL GLASS FIBER AND MINERAL FIBER**  
**USED AS FIRE BLOCKING AND FIRE STOPPING**

**Requested By:** WILLIAM T. HUNT, BUILDING OFFICIAL, CITY OF BEND  
WALTER M. FRIDAY, P.E., CODE ENGINEER, BUILDING CODES DIVISION

**QUESTION**

Can fiberglass batts or blown-in blankets be used in lieu of conventional fire blocking in areas designated below, for Type V and Type V-N construction:

1. Walls at soffit line, cove ceiling line or at a balloon framed floor line?
2. In staggered-stud sound-transmission walls?
3. Around pipes, ducts and similar openings?

**APPLICABLE CODE SECTIONS**

1993 Oregon Structural Specialty Code (OSSC), Chapter 25, Section 2516 (f) 2, 3 and Chapter 53, 5303 (e) 2.  
1993 Oregon One and Two Family Dwelling Specialty Code (Dwelling Code), Section R-402.7 (as amended by Oregon) and Chapter 53, Section 5303 (e) 2.

**Proposed Codes:**

1994 Uniform Building Code, Sections 708.2, 708.2.2, 708.2.3; 1307.1.7.2 and 1312.1.1 (as amended by Oregon).

1995 CABO One and Two Family Dwelling Code (1995 Dwelling Code), Section 602.7 and appropriate energy conservation section.

**BACKGROUND**

This original interpretation was issued July 30, 1993. However, it was silent on sound transmission walls, so the interpretation was revised October 5, 1994, to address this issue. The original question asked for use at "exterior walls" of soffit and cove ceiling line. It also asked for use at "interior walls" of a balloon framed floor line. These construction types have the same fire issue and the concern is not whether the wall is exterior or interior. The original interpretation did not specifically mention how this applies to wood-framed construction as covered in OSSC, Chapter 25 (only).

All of the codes mentioned above specify "integrity shall be maintained" of fire and draft blocks, or fire stopping. OSSC, Chapter 53, Section 5303 (e) 2 basically requires all penetrations in the exterior envelope be sealed against air leakage for any type of construction.

**FINDINGS**

- The use of fiberglass batts as fire blocking in combustible construction is appropriate as specified in each code. There is a difference between the Structural and the One and Two-Family Dwelling codes. The Structural Code uses the term "fire blocking" while the Dwelling Code uses "fire stopping." Both terms are deemed to mean the same, but the codes also provide different requirements .
- There is a list of fire stopping materials that may be approved by the building official in OSSC, Chapter 25. Sound transmission walls are allowed to be fire stopped with mineral fiber and glass fiber insulation in OSSC, Section 2516(f)3.
- The Dwelling Code does not include the list of approved materials. It also does not mention mineral fiber and glass fiber insulation as an acceptable fire stop for sound transmission walls. The 1995 Dwelling Code specifies use of unfaced fiberglass batt for fire stopping in Section 602.7.1.2.

This section also states that piping, conduit or other similar obstructions shall have insulation packed tightly around the obstruction.

- In both codes, adequate fire blocking/stopping for combustible construction is required to impede the travel of fire from one concealed building cavity to the next concealed building cavity.
- Materials used to fill the opening around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, shall be sealed with a material that effectively reduces air leakage for energy conservation. This material should have surface burning characteristics that are at least as good as the material in the concealed cavity.

Test standards for materials that are tested and listed assemblies, such as a triple-lined chimney system, include acceptable materials that may fill the opening around that product.

## **DISCUSSION**

The intent of the fire blocking/fire stopping requirement is to prevent fire from communicating between concealed building cavities within combustible construction. The intent of sealing air leakage penetrations in Chapter 53 of the code is to reduce infiltration / exfiltration of air through the exterior building envelope. This is a separate issue and is applicable for combustible and noncombustible buildings.

OSSC, Section 2516 (f) 3 (1994 UBC, Section 708.2.2, paragraph 2 states: "Fire blocks may also be of gypsum board, cement asbestos board, mineral fiber, glass fiber or other approved materials securely fastened in place." Some jurisdictions allow batt insulation to be used for fire blocking/fire stopping in all locations questioned under both codes.

The 1995 CABO Dwelling Code, Section 602.7.1.1, specifically allows unfaced fiberglass batt as an acceptable fire-stopping when it fills the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically. The 1995 Dwelling Code, Section 602.7.1.2, states the integrity of all fire-stops shall be maintained.

General acceptability under the Dwelling Code around pipe, duct and similar penetrations is use of material that prohibits air leakage and has a flame spread rating less than 75 and a smoke development rating less than 450. Although there is no specific mention of using batt insulation in sound-transmission walls in the Dwelling Code, it is generally accepted as specified in the Structural Code.

## **CONCLUSION**

### **Structural Specialty Code**

1. Unfaced mineral fiber or fiberglass batt is an acceptable alternate method of construction to rigid fire-blocking for walls at the soffit line, cove ceiling line, and at balloon framed floor line. The batt shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically from the top of the wall downward. When piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Insulation that does not fill entire cavity vertically shall be supported so it stays in place and will not drop under fire conditions. An example of support that is not acceptable would be supporting unfaced batt material with combustible twine or plastic netting.

As provided in OSSC, Section 2516 (f) 3, second paragraph (1994 UBC, Section 708.2.3, second paragraph), loose-fill insulation material (such as blown-in blanket) shall not be used as a fire block unless specifically fire tested and approved by the building official.

2. The Structural Specialty Code, Section 2516 (f) 3, last paragraph (1994 UBC, Section 708.2.3, last paragraph), specifically allows mineral fiber and glass fiber and other approved non-rigid materials be used as fire blocking in combustible walls having parallel or staggered studs for sound-

transmission control. As provided in the second paragraph, loose-fill insulation material shall not be used as a fire block unless specifically fire tested and approved by the building official.

3. A. Material used in fire block opening around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, that has a flame spread rating less than 75 and a smoke development rating less than 450 shall be acceptable.

B. The only material acceptable around a listed assembly/product is one that has been tested with that material around the opening.

### **One and Two Family Dwelling Specialty Code Section R-402.7 (1995 Dwelling Code, Section 602.7)**

1. Unfaced mineral fiber or fiberglass batt is an acceptable fire-stopping for walls at the soffit line, cove ceiling line, and at balloon framed floor line as specified in the 1995 Dwelling Code, Section 602.7. The batt shall fill the entire cross section of the wall cavity to a minimum height of 16 inches (406 mm) measured vertically from the top of the wall downward. When piping, conduit or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Insulation that does not fill entire cavity vertically, shall be supported so it stays in place and will not drop under fire conditions. An example of support that is not acceptable would be supporting unfaced batt material with combustible twine or plastic netting.

To authorize loose-fill insulation (such as blown-in blanket) as fire-stopping, the building official must find it equivalent to fire-stopping as provided in Section 108.

2. The use of mineral fiber or glass fiber or other approved non-rigid material as provided in OSSC, Section 2516(f) 3, last paragraph, (1994 UBC, Section 708.2.3, last paragraph) may be used as an acceptable alternate method of construction. This will be allowed since the One and Two Family Dwelling Specialty Code does not specifically have an allowance for mineral fiber and glass fiber insulation as an acceptable fire stop in sound transmission walls.
3. A. An acceptable material used in fire block opening around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, is one that has a flame spread rating less than 75 and a smoke development rating less than 450.

B. The only material acceptable around a listed assembly/product is one that has been tested with that material around the opening.

(signed August 7, 1995)

John A. Talbott, P.E., Chair  
Building Codes Structures Board

The recommendations and findings of the Building Codes Structures Board are accepted and the conclusions are adopted.

(signed August 16, 1995)

Joseph A. Brewer III, Administrator  
Building Codes Division