

HOOVER TREATED WOOD PRODUCTS, INC

TECHNICAL NOTE

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OVERHANG FIRE PROTECTION

The International Building Code (IBC) and the International Residential Code (IRC) require projections beyond the wall to be protected based on fire separation distance. Overhangs such as roof eaves and soffits are one element needing protection. The IBC provides options while the IRC has only one method of compliance.

The IBC in Section 705.2.3 permits the use of Type IV construction, *fire-retardant-treated wood* or 1-hr fire-resistance construction for combustible projections. The IRC in Table R302.1(1) only permits the 1-hr fire-resistance construction on the underside. There is no 1-hr. fire-resistance assembly listed for roof eaves. As a result, users of the International Residential Code are looking to the International Building Code for compliance with the requirement.

International Building Code:¹

705.2.3 Combustible projections. Combustible projections extending to within 5 feet (1524 mm) of the line used to determine the *fire separation distance* shall be of not less than 1-hour *fire-resistance-rated* construction, Type IV construction, *fire-retardant-treated wood* (emphasis added) or as required by Section 1406.3.

International Residential Code:²

TABLE R302.1(1)² (extract)
EXTERIOR WALLS

| EXTERIOR WALL ELEMENT | MINIMUM FIRE-RESISTANCE RATING | MINIMUM FIRE SEPARATION DISTANCE | |
|-----------------------|--------------------------------|---|----------------------|
| Projections | Not allowed | N/A | < 2 feet |
| | Fire-resistance rated | 1 hour on the underside ^{a, b} | > 2 feet to < 5 feet |
| | Not fire-resistance rated | 0 hours | > 5 feet |

N/A = Not Applicable.

a. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fireblocking is provided from the wall top plate to the underside of the roof sheathing.

b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that gable vent openings are not installed.

Note: Underside protection of the roof eave is not required when a fire sprinkler system meeting P2904 in the residential code or NFPA 13D is installed (Table R302.1.(2)).

Summary:

The code official is allowed under Section R104.1 and R104.11, to interpret and allow alternative methods to meet the requirements of the code. Because fire-retardant-treated wood is an option in the building code and is allowed to substitute for a 1-hr. fire resistant rating in the building code, with the consent of the code official, it can be used for the residential code requirement.

REFERENCES

[1] International Code Council, Inc. (ICC) (2012) (2015), *International Building Code, 2015*, Falls Church, VA.

[2] International Code Council, Inc. (ICC) (2012) (2015), *International Residential Code, 2015*, Falls Church, VA.

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