

2021 Virginia Construction Code

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

SECTION 1505 FIRE CLASSIFICATION

[BF] 1505.1 General.

Roof assemblies shall be divided into the classes defined in this section. Class A, B and *Croof assemblies* and *roof coverings* required to be listed by this section shall be tested in accordance with [ASTM E108](#) or [UL 790](#). In addition, *fire-retardant-treated wood roof coverings* shall be tested in accordance with [ASTM D2898](#). The minimum *roof coverings* installed on buildings shall comply with [Table 1505.1](#) based on the type of construction of the building.

Exception: Skylights and sloped glazing that comply with [Chapter 24](#) or [Section 2610](#).

TABLE 1505.1
MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION^{a, b}

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	C ^c	B	C ^c	B	B	C ^c

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

- Unless otherwise required in accordance with the [International Wildland-Urban Interface Code](#) or due to the location of the building within a fire district in accordance with Appendix D.
- Nonclassified roof coverings shall be permitted on buildings of Group R-3 and Group U occupancies, where there is a minimum fire-separation distance of 6 feet measured from the leading edge of the roof.
- Buildings that are not more than two stories above grade plane and having not more than 6,000 square feet of projected roof area and where there is a minimum 10-foot fire-separation distance from the leading edge of the roof to a lot line on all sides of the building, except for street fronts or public ways, shall be permitted to have roofs of No. 1 cedar or redwood shakes and No. 1 shingles constructed in accordance with [Section 1505.7](#).

[BF] 1505.2 Class A roof assemblies.

Class A *roof assemblies* are those that are effective against severe fire test exposure. Class A *roof assemblies* and *roof coverings* shall be listed and identified as Class A by an approved testing agency. Class A *roof assemblies* shall be permitted for use in buildings or structures of all types of construction.

Exceptions:

- Class A *roof assemblies* include those with coverings of brick, masonry or an exposed concrete roof deck.
- Class A *roof assemblies* also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on noncombustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.
- Class A *roof assemblies* include minimum 16 ounce per square foot (0.0416 kg/m²) copper sheets installed over combustible decks.
- Class A *roof assemblies* include slate installed over [ASTM D226](#), Type II underlayment over combustible decks.

[BF] 1505.3 Class B roof assemblies.

Class B *roof assemblies* are those that are effective against moderate fire-test exposure. Class B *roof assemblies* and *roof coverings* shall be listed and identified as Class B by an approved testing agency.

[BF] 1505.4 Class C roof assemblies.

Class C *roof assemblies* are those that are effective against light fire-test exposure. Class C *roof assemblies* and *roof coverings* shall be listed and identified as Class C by an approved testing agency.

[BF] 1505.5 Nonclassified roofing.

Nonclassified roofing is approved material that is not listed as a Class A, B or C *roof covering*.

Copyright © 2024 International Code Council, Inc., or its licensors (ALL RIGHTS RESERVED).

Accessed by Venkatesh Shanmugam on 11/14/2024 pursuant to License Agreement with ICC. No further reproduction or distribution authorized. Any Unauthorized reproduction or distribution is a violation of the federal copyright, and subject to civil and criminal penalties thereunder.

[BF] 1505.6 Fire-retardant-treated wood shingles and shakes.

*Fire-retardant-treated wood shakes and shingles shall be treated by impregnation with chemicals by the full-cell vacuum-pressure process, in accordance with [AWPA C1](#). Each bundle shall be marked to identify the manufactured unit and the manufacturer, and shall be *labeled* to identify the classification of the material in accordance with the testing required in [Section 1505.1](#), the treating company and the quality control agency.*

[BF] 1505.7 Special purpose roofs.

Special purpose wood shingle or wood shake roofing shall conform to the grading and application requirements of [Section 1507.8](#) or [1507.9](#). In addition, an *underlayment* of $\frac{5}{8}$ -inch (15.9 mm) Type X water-resistant gypsum backing board or *gypsum sheathing* shall be placed under minimum nominal $\frac{1}{2}$ -inch-thick (12.7 mm) *wood structural panel* solid sheathing or 1-inch (25 mm) nominal spaced sheathing.

[BF] 1505.8 Building-integrated photovoltaic (BIPV) products.

BIPV products installed as the roof covering shall be tested, *listed* and *labeled* for fire classification in accordance with [Section 1505.1](#).

[BF] 1505.9 Rooftop mounted photovoltaic (PV) panel systems.

Rooftop mounted *photovoltaic (PV) panel systems* shall be tested, *listed* and identified with a fire classification in accordance with [UL 2703](#). *Listed systems shall be installed in accordance with the manufacturer's installation instructions and their listing*. The fire classification shall comply with [Table 1505.1](#) based on the type of construction of the building.

[BF] 1505.10 Landscaped roofs.

Landscaped roofs shall comply with [Sections 1505.1](#) and [1507.15](#) and shall be installed in accordance with [ANSI/SPRI VF-1](#).