

# 2021 Virginia Construction Code

## CHAPTER 8 INTERIOR FINISHES

### SECTION 803 WALL AND CEILING FINISHES

#### 803.1 General.

*Interior wall and ceiling finish* materials shall be classified for fire performance and smoke development in accordance with [Section 803.1.1](#) or [803.1.2](#), except as shown in [Sections 803.1.3](#) through [803.15](#). Materials tested in accordance with [Section 803.1.1](#) shall not be required to be tested in accordance with [Section 803.1.2](#).

#### 803.1.1 Interior wall and ceiling finish materials tested in accordance with NFPA 286.

*Interior wall and ceiling finish* materials shall be classified in accordance with [NFPA 286](#) and comply with [Section 803.1.1.1](#). Materials complying with [Section 803.1.1.1](#) shall be considered to also comply with the requirements of Class A.

##### 803.1.1.1 Acceptance criteria for NFPA 286.

The *interior finish* shall comply with the following:

1. During the 40 kW exposure, flames shall not spread to the ceiling.
2. The flame shall not spread to the outer extremity of the sample on any wall or ceiling.
3. Flashover, as defined in [NFPA 286](#), shall not occur.
4. The peak heat release rate throughout the test shall not exceed 800 kW.
5. The total smoke released throughout the test shall not exceed 1,000 m<sup>3</sup>.

#### 803.1.2 Interior wall and ceiling finish materials tested in accordance with ASTM E84 or UL 723.

*Interior wall and ceiling finish* materials shall be classified in accordance with [ASTM E84](#) or [UL 723](#). Such *interior finish* materials shall be grouped in the following classes in accordance with their *flame spread* and *smoke-developed indices*.

Class A = *Flame spread index* 0-25; *smoke-developed index* 0-450.

Class B = *Flame spread index* 26-75; *smoke-developed index* 0-450.

Class C = *Flame spread index* 76-200; *smoke-developed index* 0-450.

**Exception:** Materials tested in accordance with [Section 803.1.1](#) and as indicated in [Sections 803.1.3](#) through [803.13](#).

#### 803.1.3 Interior wall and ceiling finish materials with different requirements.

The materials indicated in [Sections 803.2](#) through [803.13](#) shall be tested as indicated in the corresponding sections.

#### 803.2 Thickness exemption.

Materials having a thickness less than 0.036 inch (0.9 mm) applied directly to the surface of walls or ceilings shall not be required to be tested.

#### 803.3 Heavy timber exemption.

Exposed portions of *building elements* complying with the requirements for buildings of heavy timber construction in [Section 602.4](#) or [Section 2304.11](#) shall not be subject to *interior finish* requirements except in *interior exit stairways*, *interior exit ramps*, and *exit passageways*.

#### 803.4 Foam plastics.

Foam plastics shall not be used as *interior finish* except as provided in [Section 2603.9](#). This section shall apply both to exposed foam plastics and to foam plastics used in conjunction with a textile or vinyl facing or cover.

#### 803.5 Textile wall coverings.

Where used as interior wall finish materials, textile wall coverings, including materials having woven or nonwoven, napped, tufted, looped or similar surface and carpet and similar textile materials, shall be tested in the manner intended for use, using the product-mounting system, including adhesive, and shall comply with the requirements of one of the following: [Section 803.1.1](#), [803.5.1](#) or [803.5.2](#).

##### 803.5.1 Room corner test for textile wall coverings and expanded vinyl wall coverings.

Textile wall coverings and *expanded vinyl wall coverings* shall meet the criteria of [Section 803.5.1.1](#) when tested in the manner intended for use in accordance with the Method B protocol of [NFPA 265](#) using the product-mounting system, including adhesive.

##### 803.5.1.1 Acceptance criteria for NFPA 265.

The *interior finish* shall comply with the following:

1. During the 40 kW exposure, flames shall not spread to the ceiling.
2. The flame shall not spread to the outer extremities of the samples on the 8-foot by 12-foot (203 by 305 mm) walls.
3. Flashover, as defined in [NFPA 265](#), shall not occur.
4. The total smoke release throughout the test shall not exceed 1,000 m<sup>3</sup>.

##### 803.5.2 Acceptance criteria for textile and expanded vinyl wall or ceiling coverings tested to ASTM E84 or UL 723.

Textile wall and ceiling coverings and expanded vinyl wall and ceiling coverings shall have a Class A *flame spread index* in

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

Accessed by Venkatesh Shanmugam on 11/13/2024 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.

accordance with [ASTM E84](#) or [UL 723](#) and be protected by an automatic sprinkler system installed in accordance with [Section 903.3.1.1](#) or [903.3.1.2](#). Test specimen preparation and mounting shall be in accordance with [ASTM E2404](#).

#### 803.6 Textile ceiling coverings.

Where used as interior ceiling finish materials, textile ceiling coverings, including materials having woven or nonwoven, napped, tufted, looped or similar surface and carpet and similar textile materials, shall be tested in the manner intended for use, using the product-mounting system, including adhesive, and shall comply with the requirements of [Section 803.1.1](#) or [803.5.2](#).

#### 803.7 Expanded vinyl wall coverings.

Where used as interior wall finish materials, *expanded vinyl wall coverings* shall be tested in the manner intended for use, using the product-mounting system, including adhesive, and shall comply with the requirements of one of the following: [Section 803.1.1](#), [803.5.1](#) or [803.5.2](#).

#### 803.8 Expanded vinyl ceiling coverings.

Where used as interior ceiling finish materials, expanded vinyl ceiling coverings shall be tested in the manner intended for use, using the product mounting system, including adhesive, and shall comply with the requirements of [Section 803.1.1](#) or [803.5.2](#).

#### 803.9 High-density polyethylene (HDPE) and polypropylene (PP).

Where high-density polyethylene or polypropylene is used as an *interior finish*, it shall comply with [Section 803.1.1](#).

#### 803.10 Site-fabricated stretch systems.

Where used as interior wall or interior ceiling finish materials, *site-fabricated stretch systems* containing all three components described in the definition in [Chapter 2](#) shall be tested in the manner intended for use, and shall comply with the requirements of [Section 803.1.1](#) or [with the requirements of Class A in accordance with Section 803.1.2](#). If the materials are tested in accordance with [ASTM E84](#) or [UL 723](#), specimen preparation and mounting shall be in accordance with [ASTM E2573](#).

#### 803.11 Laminated products factory produced with a wood substrate.

Laminated products factory produced with a wood substrate shall comply with one of the following:

1. The laminated product shall meet the criteria of [Section 803.1.1.1](#) when tested in accordance with [NFPA 286](#) using the product-mounting system, including adhesive, as described in Section 5.8 of [NFPA 286](#).
2. The laminated product shall have a Class A, B, or C *flame spread index* and *smoke-developed index*, based on the requirements of [Table 803.13](#), in accordance with [ASTM E84](#) or [UL 723](#). Test specimen preparation and mounting shall be in accordance with [ASTM E2579](#).

#### 803.12 Facings or wood veneers intended to be applied on site over a wood substrate.

Facings or *veneers* intended to be applied on site over a wood substrate shall comply with one of the following:

1. The facing or *veneer* shall meet the criteria of [Section 803.1.1.1](#) when tested in accordance with [NFPA 286](#) using the product mounting system, including adhesive, as described in Section 5.9 of [NFPA 286](#).
2. The facing or veneer shall have a Class A, B or C *flame spread index* and *smoke-developed index*, based on the requirements of [Table 803.13](#), in accordance with [ASTM E84](#) or [UL 723](#). Test specimen preparation and mounting shall be in accordance with [ASTM E2404](#).

#### 803.13 Interior finish requirements based on occupancy.

*Interior wall and ceiling finish* shall have a *flame spread index* not greater than that specified in [Table 803.13](#) for the group and location designated. *Interior wall and ceiling finish* materials tested in accordance with [NFPA 286](#) and meeting the acceptance criteria of [Section 803.1.1.1](#), shall be permitted to be used where a Class A classification in accordance with [ASTM E84](#) or [UL 723](#) is required.

**TABLE 803.13**  
**INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY<sup>k</sup>**

GROUP	SPRINKLERED <sup>l</sup>			NONSPRINKLERED		
	Interior exit stairways and ramps and exit passageways <sup>a, b</sup>	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces <sup>c</sup>	Interior exit stairways and ramps and exit passageways <sup>a, b</sup>	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces <sup>c</sup>
A-1 & A-2	B	B	C	A	A <sup>d</sup>	B <sup>e</sup>

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

Accessed by Venkatesh Shanmugam on 11/13/2024 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.

A-3, A-4, A-5	B	B	C	A	A <sup>d</sup>	C
B, E, M, R-1	B	C <sup>m</sup>	C	A	B	C
R-4	B	C	C	A	B	B
F	C	C	C	B	C	C
H	B	B	C <sup>g</sup>	A	A	B
I-1	B	C	C	A	B	B
I-2	B	B	B <sup>h, i</sup>	A	A	B
I-3	A	A <sup>j</sup>	C	A	A	B
I-4	B	B	B <sup>h, i</sup>	A	A	B
R-2	C	C	C	B	B	C
R-3	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m<sup>2</sup>.

- Class C interior finish materials shall be permitted for wainscoting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by [Section 803.15.1](#).
- In other than Group I-3 occupancies in buildings less than three stories above grade plane, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.
- Requirements for rooms and enclosed spaces shall be based on spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered to be enclosing spaces and the rooms or spaces on both sides shall be considered to be one room or space. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
- Lobby areas in Group A-1, A-2 and A-3 occupancies shall be not less than Class B materials.

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

Accessed by Venkatesh Shanmugam on 11/13/2024 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.

- e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
- f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.
- g. Class B material is required where the building exceeds two stories.
- h. Class C interior finish materials shall be permitted in administrative spaces.
- i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
- j. Class B materials shall be permitted as wainscotting extending not more than 48 inches above the finished floor in corridors and exit access stairways and ramps.
- k. Finish materials as provided for in other sections of this code.
- l. Applies when protected by an automatic sprinkler system installed in accordance with [Section 903.3.1.1](#) or [903.3.1.2](#).
- m. Corridors in ambulatory care facilities shall be provided with Class A or B materials.

#### **803.14 Stability.**

*Interior finish* materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subjected to room temperatures of 200°F (93°C) for not less than 30 minutes.

#### **803.15 Application of interior finish materials to fire-resistance-rated or noncombustible building elements.**

Where *interior finish* materials are applied on walls, ceilings or structural elements required to have *fire-resistance rating* or to be of noncombustible construction, these finish materials shall comply with the provisions of this section.

##### **803.15.1 Direct attachment and furred construction.**

Where walls, ceilings or structural elements are required by any provision in this code to be of fire-resistance-rated or noncombustible construction, the *interior finish* material shall be applied directly against such construction or to furring strips not exceeding 1<sup>3</sup>/<sub>4</sub> inches (44 mm), applied directly against such surfaces.

##### **803.15.1.1 Furred construction.**

If the *interior finish* material is applied to furring strips, the intervening spaces between such furring strips shall comply with one of the following:

1. Be filled with material that is inorganic or noncombustible.
2. Be filled with material that meets the requirements of a Class A material in accordance with [Section 803.1.1](#) or [803.1.2](#).
3. Be fireblocked at not greater than 8 feet (2438 mm) in every direction in accordance with [Section 718](#).

**Exception:** Compliance with Item 1, 2 or 3 is not required where the materials used to create the concealed space are noncombustible.

##### **803.15.2 Set-out construction.**

Where walls and ceilings are required to be of fire-resistance-rated or noncombustible construction and walls are set out or ceilings are dropped distances greater than specified in [Section 803.15.1](#), Class A finish materials, in accordance with [Section 803.1.1](#) or [803.1.2](#), shall be used.

##### **Exceptions:**

1. Where *interior finish* materials are protected on both sides by an *automatic sprinkler system* in accordance with [Section 903.3.1.1](#) or [903.3.1.2](#).
2. Where *interior finish* materials are attached to noncombustible backing or furring strips installed as specified in [Section 803.15.1.1](#).
3. Where the combustible void is filled with a noncombustible material.

##### **803.15.2.1 Hangers and assembly members.**

The hangers and assembly members of such dropped ceilings that are below the horizontal fire-resistance-rated floor or roof assemblies shall be of noncombustible materials. The construction of each set-out wall and horizontal fire-resistance-rated floor or roof assembly shall be of fire-resistance-rated construction as required elsewhere in this code.

**Exception:** In Types III and V construction, *fire-retardant-treated wood* shall be permitted for use as hangers and assembly members of dropped ceilings.

##### **803.15.3 Heavy timber construction.**

Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of heavy timber construction in [Section 602.4.4.2](#) or [2304.11](#) or to wood furring strips applied directly to the wood

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

Accessed by Venkatesh Shanmugam on 11/13/2024 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.

decking or planking shall be fireblocked as specified in [Section 803.15.1.1](#).

#### **803.15.4 Materials.**

An interior wall or ceiling finish material that is not more than  $\frac{1}{4}$  inch (6.4 mm) thick shall be applied directly onto the wall, ceiling or structural element without the use of furring strips and shall not be suspended away from the building element to which that finish material it is applied.

##### **Exceptions:**

1. Noncombustible *interior finish* materials.
2. Materials that meet the requirements of Class A materials in accordance with [Section 803.1.1](#) or [803.1.2](#) where the qualifying tests were made with the material furred out from the noncombustible backing shall be permitted to be used with furring strips.
3. Materials that meet the requirements of Class A materials in accordance with [Section 803.1.1](#) or [803.1.2](#) where the qualifying tests were made with the material suspended away from the noncombustible backing shall be permitted to be used suspended away from the building element.