

2021 Virginia Construction Code

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 424 PLAY STRUCTURES

424.1 General.

Play structures installed inside all occupancies covered by this code that exceed 10 feet (3048 mm) in height or 150 square feet (14 m²) in area shall comply with [Sections 424.2 through 424.5](#).

424.2 Materials.

Play structures shall be constructed of noncombustible materials or of combustible materials that comply with the following:

1. *Fire-retardant-treated* wood complying with [Section 2303.2](#).
2. Light-transmitting plastics complying with [Section 2606](#).
3. Foam plastics (including the pipe foam used in *soft-contained play equipment structures*) having a maximum heat-release rate not greater than 100 kilowatts when tested in accordance with [UL 1975](#) or when tested in accordance with [NFPA 289](#), using the 20 kW ignition source.
4. Aluminum composite material (ACM) meeting the requirements of Class A *interior finish* in accordance with [Chapter 8](#) when tested as an assembly in the maximum thickness intended for use.
5. Textiles and films complying with the fire propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of [NFPA 701](#).
6. Plastic materials used to construct rigid components of *soft-contained play equipment structures* (such as tubes, windows, panels, junction boxes, pipes, slides and decks) exhibiting a peak rate of heat release not exceeding 400 kW/ m² when tested in accordance with [ASTM E1354](#) at an incident heat flux of 50 kW/m² in the horizontal orientation at a thickness of 6 mm.
7. Ball pool balls, used in *soft-contained play equipment structures*, having a maximum heat-release rate not greater than 100 kilowatts when tested in accordance with [UL 1975](#) or when tested in accordance with [NFPA 289](#), using the 20 kW ignition source. The minimum specimen test size shall be 36 inches by 36 inches (914 mm by 914 mm) by an average of 21 inches (533 mm) deep, and the balls shall be held in a box constructed of galvanized steel poultry netting wire mesh.
8. Foam plastics shall be covered by a fabric, coating or film meeting the fire propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of [NFPA 701](#).
9. The floor covering placed under the *play structure* shall exhibit a Class I *interior floor finish* classification, as described in [Section 804](#), when tested in accordance with [ASTM E648](#) or [NFPA 253](#).
10. Interior finishes for structures exceeding 600 square feet (56 m²) in area or 10 feet (3048 mm) in height shall have a flame spread index not greater than that specified in [Table 803.13](#) for the occupancy 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.

[F] 424.3 Fire protection.

Play structures shall be provided with the same level of *approved* fire suppression and detection devices required for other structures in the same occupancy.

424.4 Separation.

Play structures shall have a horizontal separation from building walls, partitions and from elements of the means of egress of not less than 5 feet (1524 mm). **Play** structures shall have a horizontal separation from other *play structures* of not less than 20 feet (6090 mm).

424.5 Area limits.

Play structures shall be not greater than 600 square feet (56 m²) in area, unless a special investigation, acceptable to the building official, has demonstrated adequate fire safety.

424.5.1 Design.

Play structures exceeding 600 square feet (56 m²) in area or 10 feet (3048 mm) in height shall be designed in accordance with [Chapter 16](#).