

# 2021 Virginia Construction Code

## CHAPTER 14 EXTERIOR WALLS

### SECTION 1408 HIGH-PRESSURE DECORATIVE EXTERIOR- GRADE COMPACT LAMINATES (HPL)

#### 1408.1 General.

The provisions of this section shall govern the materials, construction and quality of High-Pressure Decorative ~~Exterior-Grade Compact Laminates (HPL)~~ for use as ~~exterior wall coverings~~ in addition to other applicable requirements of [Chapters 14](#) and [16](#).

#### 1408.2 Exterior wall covering.

HPL used as *exterior wall covering* or as elements of balconies and similar projections and bay and oriel windows to provide cladding or weather resistance shall comply with [Sections 1408.4](#) through [1408.14](#).

#### 1408.3 Architectural trim and embellishments.

HPL used as architectural trim or embellishments shall comply with [Sections 1408.7](#) through [1408.14](#).

#### [BS] 1408.4 Structural design.

HPL systems shall be designed and constructed to resist windloads as required by [Chapter 16](#) for components and cladding.

#### 1408.5 Approval.

Results of approved tests or an engineering analysis shall be submitted to the building official to verify compliance with the requirements of [Chapter 16](#) for wind loads.

#### 1408.6 Weather resistance.

HPL systems shall comply with [Section 1402](#) and shall be designed and constructed to resist wind and rain in accordance with this section and the manufacturer's instructions.

#### 1408.7 Durability.

HPL systems shall be constructed of approved materials that maintain the performance characteristics required in [Section 1408](#) for the duration of use.

#### 1408.8 Fire-resistance rating.

Where HPL systems are used on *exterior walls* required to have a *fire-resistance rating* in accordance with [Section 705](#), evidence shall be submitted to the building official that the required *fire-resistance rating* is maintained.

**Exception:** HPL systems not containing foam plastic insulation, which are installed on the outer surface of a fire-resistance-rated *exterior wall* in a manner such that the attachments do not penetrate through the entire *exterior wall* assembly, shall not be required to comply with this section.

#### 1408.9 Surface-burning characteristics.

Unless otherwise specified, HPL shall have a *flame spread index* of 75 or less and a *smoke-developed index* of 450 or less when tested in the minimum and maximum thicknesses intended for use in accordance with [ASTM E84](#) or [UL 723](#).

#### 1408.10 Types I, II, III and IV construction.

Where installed on buildings of Types I, II, III and IV construction, HPL systems shall comply with [Sections 1408.10.1](#) through [1408.10.4](#), or [Section 1408.11](#).

##### 1408.10.1 Surface-burning characteristics.

HPL shall have a *flame spread index* of not more than 25 and a *smoke-developed index* of not more than 450 when tested in the minimum and maximum thicknesses intended for use in accordance with [ASTM E84](#) or [UL 723](#).

##### 1408.10.2 Thermal barriers.

HPL shall be separated from the interior of a building by an approved thermal barrier consisting of  $\frac{1}{2}$ -inch (12.7 mm) gypsum wall-board or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of [NFPA 275](#).

##### 1408.10.3 Thermal barrier not required.

The thermal barrier specified for HPL in [Section 1408.10.2](#) is not required where:

1. The HPL system is specifically approved based on tests conducted in accordance with [NFPA 286](#), and with the acceptance criteria of [Section 803.1.1.1](#), or with [UL 1040](#) or [UL 1715](#). Such testing shall be performed with the HPL in the minimum and maximum thicknesses intended for use. The HPL system shall include seams, joints and other typical details used in the installation and shall be tested in the manner intended for use.

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2. The HPL is used as elements of balconies and similar projections, architectural *trim* or embellishments.

#### **1408.10.4 Full-scale tests.**

The HPL system shall be tested in accordance with, and comply with, the acceptance criteria of [NFPA 285](#). Such testing shall be performed on the HPL system with the HPL in the minimum and maximum thicknesses intended for use.

#### **1408.11 Alternate conditions.**

HPL and HPL systems shall not be required to comply with [Sections 1408.10.1](#) through [1408.10.4](#) provided that such systems comply with [Section 1408.11.1](#).

##### **1408.11.1 Installations up to 40 feet in height.**

HPL shall be [permitted to be installed up to](#) 40 feet (12 190 mm) in height above *grade plane* where installed in accordance with [Section 1408.11.1.1](#) or [1408.11.1.2](#).

##### **1408.11.1.1 Fire separation distance of 5 feet or less.**

Where the *fire separation distance* is 5 feet (1524 mm) or less, the area of HPL shall not exceed 10 percent of the *exterior wall* surface.

##### **1408.11.1.2 Fire separation distance greater than 5 feet.**

Where the *fire separation distance* is greater than 5 feet (1524 mm), the area of *exterior wall* surface coverage using HPL shall not be limited.

#### **1408.12 Type V construction.**

HPL shall be permitted to be installed on buildings of Type V construction.

#### **1408.13 Foam plastic insulation.**

HPL systems containing foam plastic insulation shall comply with the requirements of [Section 2603](#).

#### **1408.14 Labeling.**

HPL shall be labeled in accordance with [Section 1703.5](#).