



DELETED



First Revision No. 8019-NFPA 5000-2024 [Detail]

37.4.4.1

The thermal barrier specified in 37.4.4(3) shall not be required where MCM meets either of the following conditions:

- (1) MCM is installed as part of a balcony or similar architectural appendage or as exterior trim and is not part of a common wall with the building interior.
- (2) MCM is approved for the specific installation, based on tests conducted using the maximum thickness intended for use in accordance with one of the following:
 - (a) NFPA 286, with the acceptance criteria of 10.2.3.2
 - (b) UL 1040, *Fire Test of Insulated Wall Construction*
 - (c) The room test in ANSI/FM Approvals 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials*
 - (d) UL 1715, *Fire Test of Interior Finish Material*

Detail FR-8019

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
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Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 14:42:00 EDT 2024

Committee Statement

Committee Statement: The committee made this change to correlate to changes made via the First Revision of PI-159. Note the only change is "the room test in" (c).

Response Message: FR-8019-NFPA 5000-2024



First Revision No. 8022-NFPA 5000-2024 [Detail]

Add new section.

Detail FR-8022

41.2.2 Structural Concrete with GFRP Reinforcement.

The design and construction of cast-in-place structural elements of concrete reinforced with glass fiber reinforced polymer (GFRP) reinforcement shall comply with ACI 440.11, *Building Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars — Code and Commentary*, unless modified by other provisions of this chapter, including the following limitations.

(1) Glass fiber reinforced polymer reinforcement shall comply with ASTM D7957/D7957M, *Standard Specification for Solid Round Glass Fiber Reinforced Polymer Bars for Concrete Reinforcement*.

(2) Structural concrete elements reinforced with GFRP reinforcement in buildings assigned to Seismic Design Categories D, E or F shall not be permitted.

(3) Structural concrete elements reinforced with GFRP reinforcement that are part of the seismic lateral force resisting system in buildings assigned to Seismic Design Categories B or C shall not be permitted.

(4) Structural concrete elements reinforced with GFRP reinforcement shall not be permitted where fire resistance ratings are required unless tests or analyses are documented and approved.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
FR-8022_Word_Track_Changes.docx		

Submitter Information Verification

Committee: BLD-SCM
Submittal Date: Tue Jul 09 16:06:19 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification. This new section addresses glass fiber reinforced polymer (GFRP), which was not previously addressed within NFPA 5000. These new requirements provide for the use of GFRP in accordance with referenced standards ACI 440.11 and ASTM D7957/D7957M. These requirements address specifics and provisions as they pertain to this new material. The modifications to the submitters PI include adding editorial commas as well as modifying the scoping language to “including” from “and with” to reflect the fact that parentheticals 1, 2, 3 and 4 are part of the reference material.

Response Message: FR-8022-NFPA 5000-2024

Public Input No. 55-NFPA 5000-2024 [New Section after 41.2.1]



First Revision No. 8037-NFPA 5000-2024 [Detail]

See attached Word file for BLD-SCM Extract definition changes

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
BLD-SCM_Extract_Definitions.docx	TC acronym included.	
BLD-SCM_Detail_FR-8037_Extract_Definitions.docx	For prod use	
BLD-SCM_Detail_FR-8037_Extract_Definitions_for_ballot.docx	For ballot	

Submitter Information Verification

Committee: BLD-SCM

Submission Date: Wed Jul 10 11:29:07 EDT 2024

Committee Statement

Committee Statement: This FR provides two changes. 1.) ASCE extracts removed and the applicable sections within those specified documents is referenced. 2.) ASTM extracts removed and the applicable sections within those specified documents is referenced.

Response Message: FR-8037-NFPA 5000-2024

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BLD-SCM Chapter 3 Extract Definitions

3.3.54 Basic Wind Speed (*V*).

~~Three-second gust speed at 33 ft (10 m) above the ground in Exposure C (see ASCE/SEI 7, Section 26.7.3) as determined in accordance with ASCE/SEI 7, Section 26.5.1. [ASCE/SEI 7:26.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)~~

3.3.68* Buildings.

~~Structures, usually enclosed by walls and a roof, constructed to provide support or shelter for an intended occupancy. [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.69 Built-Up Roofing.

~~A continuous, semiflexible membrane consisting of plies of saturated felts, coated felts, fabrics or mats assembled in place with alternate layers of bitumen, and surfaced with mineral aggregate, bituminous materials, or a granule surfaced sheet (abbreviation, BUR). [ASTM D1079: 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.104 Coal Tar.

~~A dark brown to black cementitious material produced by the destructive distillation of coal. [ASTM D1079: 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.116 Component.

~~A part of an architectural, electrical, or mechanical system. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.117 Components and Cladding.

~~Elements of the building envelope or elements of building appurtenances and rooftop structures and equipment that do not qualify as part of the main wind-force resisting system (MWFRS). [ASCE/SEI 7:26.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)~~

3.3.121.1 Plain Concrete.

~~Concrete that either is unreinforced or contains less reinforcement than the minimum amount specified in ACI 318 for reinforced concrete. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.121.2 Reinforced Concrete.

~~Prestressed or nonprestressed concrete reinforced with no less reinforcement than the minimum amount required by ACI 318 and designed on the assumption that the two materials act together in resisting forces. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.155.1 Allowable Stress Design.

~~A method of proportioning structural members such that elastically computed stresses produced in the members by nominal loads do not exceed specified allowable stresses (also called *working stress design*). [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.155.3 Strength Design.

~~A method of proportioning structural members such that the computed forces produced in the members by the factored loads do not exceed the member design strength (also called *load and resistance factor design*). [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

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3.3.156 Design Earthquake.

~~The earthquake effects that are two-thirds of the corresponding risk-targeted maximum-considered-earthquake (MCE_R). [ASCE/SEI 7-11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.160 Design Pressure (p).

~~Equivalent static pressure to be used in the determination of wind loads for buildings. [ASCE/SEI 7-26.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)~~

3.3.214.3 Essential Facilities.

~~Buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, tornado, snow, or earthquakes. [ASCE/SEI 7-1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.216.1 Importance Factor (I).

~~A factor that accounts for the degree of risk to human life, health, and welfare associated with damage to property or loss of use or functionality. [ASCE/SEI 7-1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.216.2 Load Factor.

~~A factor that accounts for deviations of the actual load from the nominal load, for uncertainties in the analysis that transform the load into a load effect, and for the probability that more than one extreme load will occur simultaneously. [ASCE/SEI 7-1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.216.3 Resistance Factor.

~~A factor that accounts for deviations of the actual strength from the nominal strength and the manner and consequences of failure (also called *strength reduction factor*). [ASCE/SEI 7-1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.252 Flashing.

~~The system used to seal membrane edges at walls, expansion joints, drains, gravel stops, and other places where the membrane is interrupted or terminated. Base flashing covers the edges of the membrane. Cap or counterflashing shields the upper edges of the base flashing. [ASTM D1079- 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.289 Glazing.

~~Glass or transparent or translucent plastic sheet used in windows, doors, skylights, or curtain walls. [ASCE/SEI 7-26.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)~~

3.3.294 Gravel.

~~Coarse, granular aggregate, with pieces larger than sand grains, resulting from the natural erosion of rock. [ASTM D1079- 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.355 Inorganic.

~~Being or composed of matter other than hydrocarbons and their derivatives, or matter that is not of plant or animal origin. [ASTM D1079- 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.378 Limit State.

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~~A condition beyond which a structure or member becomes unfit for service and is judged either to be no longer useful for its intended function (serviceability limit state) or to be unsafe (strength limit state). [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 2.1. (BLD-SCM)~~

3.3.387 Load Effects.

~~Forces and deformations produced in structural members by the applied loads. [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.390 Loads.

~~Forces or other actions that result from the weight of all building materials, occupants and their possessions, environmental effects, differential movement, and restrained dimensional changes. Permanent loads are loads in which variations over time are rare or of small magnitude. All other loads are variable loads. (See also 3.3.390.5, Nominal Loads.) [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.390.1 Dead Loads.

~~Dead loads consist of the weight of all materials of construction incorporated into the building including, but not limited to, walls, floors, roofs, ceilings, stairways, built-in partitions, finishes, cladding, and other similarly incorporated architectural and structural items, and the weight of fixed service equipment, including cranes and material handling systems. [ASCE/SEI 7:3.1.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 3.1.1. (BLD-SCM)~~

3.3.390.2 Factored Loads.

~~The product of the nominal load and a load factor. [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.390.4 Live Loads.

~~A load produced by the use and occupancy of the building or other structure that does not include construction or environmental loads, such as wind load, snow load, rain load, earthquake load, flood load, or dead load. [ASCE/SEI 7:4.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 4.1. (BLD-SCM)~~

3.3.390.4.1 Roof Live Load.

~~A live load on a roof produced (1) during maintenance by workers, equipment, and materials; and (2) during the life of the structure by movable objects such as planters or other similar small decorative appurtenances, that are not occupancy related. An occupancy related live load on a roof, such as rooftop assembly areas, rooftop decks, and vegetative or landscaped roofs with occupiable areas, is considered to be a live load rather than a roof live load. [ASCE/SEI 7:4.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 4.1. (BLD-SCM)~~

3.3.390.5 Nominal Loads.

~~The magnitudes of the loads specified in ASCE/SEI 7, Chapters 3 through 32 (dead, live, soil, wind, tornado, snow, rain, flood and earthquake). [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.401 Main Wind-Force Resisting System (MWFRS).

~~An assemblage of structural elements assigned to provide support and stability for the overall building or other structure. The system generally receives wind loading from more than one surface. [ASCE/SEI 7:26.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)~~

3.3.417 Maximum Considered Earthquake (MCE) Ground Motion.

~~The most severe earthquake effects considered by this Code as defined in Chapter 11 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. [ASCE/SEI 7: 11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.464 Openings.

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Holes that allow air to flow through the building envelope during a design wind event. [~~ASCE/SEI 7-26.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 26.2. (BLD-SCM)

3.3.466 Organic.

Being or composed of hydrocarbons or their derivatives, or matter of plant or animal origin. [~~ASTM D1079- 2.1~~] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)

3.3.482* Partition.

A nonstructural interior wall that spans horizontally or vertically from support to support. The supports may be the basic building frame, subsidiary structural members, or other portions of the partition system. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.574 Seismic Design Category.

A classification assigned to a structure based on its Risk Category and the severity of the design earthquake ground motion at the site as defined in Section 11.4 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.575 Seismic Forces.

The assumed forces prescribed herein, related to the response of the structure to earthquake motions, to be used in the design of the structure and its components. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.592 Site Class.

A classification assigned to a site based on the types of soils present and their engineering properties as defined in Chapter 20 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.636.1 Design Strength.

The product of the nominal strength and a resistance factor. [~~ASCE/SEI 7-1.2.1~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)

3.3.636.2 Nominal Strength.

(1) The capacity of a structure or member to resist the effects of loads, as determined by computations using specified material strengths and dimensions and formulas derived from accepted principles of structural mechanics or by field tests or laboratory tests of scaled models, allowing for modeling effects and differences between laboratory and field conditions. (2) For the purposes of earthquake loading, strength of a member or cross section calculated in accordance with the requirements and assumptions of the strength design methods of ASCE/SEI 7 (or the referenced standards) before application of any strength reduction factors. [~~ASCE/SEI 7-1.2, 11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.636.3 Required Strength.

Strength of a member, cross section, or connection required to resist factored loads or related internal moments and forces in such combinations as stipulated by ASCE/SEI 7. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.643* Structure.

That which is built or constructed and limited to buildings and nonbuilding structures as defined herein. [~~ASCE/SEI 7-11.2~~] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)

3.3.643.10 Other Structures.

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~~Structures, other than buildings, for which loads are specified in ASCE/SEI 7. [ASCE/SEI 7:1.2.1] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 1.2.1. (BLD-SCM)~~

3.3.651.2 Bearing Wall System.

~~A structural system with bearing walls providing support for all or major portions of the vertical loads. Shear walls or braced frames provide seismic force resistance. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.678 Vapor Retarder.

~~A layer of material or a laminate used to appreciably reduce the flow of water vapor into the roofing system. [ASTM D1079: 2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.680 Vegetative Roof.

~~An assembly of interacting components designed to weatherproof/waterproof and normally insulate a building's top surface that includes, by design, vegetation and related landscape elements. [ASTM D1079:2.1] (BLD-SCM, Reprinted, with permission, from ASTM D1079-20, *Standard Terminology Relating to Roofing and Waterproofing*, copyright ASTM International. A copy of the complete standard may be obtained from www.astm.org.) See ASTM D1079, 2.1. (BLD-SCM)~~

3.3.688 Wall.

~~A component that has a slope of 60 degrees or greater with the horizontal plane used to enclose or divide space. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.1 Bearing Wall.

~~Any wall meeting either of the following classifications: (1) any metal or wood stud wall that supports more than 100 lb/linear ft (1459 N/m) of vertical load in addition to its own weight or (2) any concrete or masonry wall that supports more than 200 lb/linear ft (2919 N/m) of vertical load in addition to its own weight. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.8 Light-Frame Wall.

~~A wall with wood or steel studs. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.9 Light-Frame Wood Shear Wall.

~~A wall constructed with wood studs and sheathed with material rated for shear resistance. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.11 Nonbearing Wall.

~~Any wall that is not a bearing wall. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.12 Nonstructural Wall.

~~A wall other than a bearing wall or shear wall. [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

3.3.688.15 Shear Wall (Vertical Diaphragm).

~~A wall, bearing or nonbearing, designed to resist lateral forces acting in the plane of the wall (sometimes referred to as a vertical diaphragm). [ASCE/SEI 7:11.2] (BLD-SCM, with permission from ASCE.) See ASCE/SEI 7, 11.2. (BLD-SCM)~~

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First Revision No. 8038-NFPA 5000-2024 [Section No. 35.2 [Excluding any Sub-Sections]]

A list of special terms used in this chapter, which are provided as is provided in 35.2.1 through 35.2.27.7 with section references to Chapter 3, that are extracted from ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, and are reprinted with permission of ASCE, follows . (See flood-related definitions in Section 39.2.)

Submitter Information Verification

Committee: BLD-SCM

Submission Date: Wed Jul 10 11:30:53 EDT 2024

Committee Statement

Committee Statement: Updated text for referenced terms to ASCE SEI/7.

Response Message: FR-8038-NFPA 5000-2024



First Revision No. 8005-NFPA 5000-2024 [Section No. 37.4.4]

37.4.4

MCM installed on the exterior of buildings classified as Type I, Type II, Type III, or Type IV construction shall comply with each of the following conditions:

- (1) When an MCM that is part of an exterior wall assembly, the entire exterior wall assembly shall be tested in accordance with NFPA 285, using the maximum MCM panel thickness intended for use, and shall meet the conditions of acceptance specified therein in the NFPA 285 test .
- (2) MCM shall meet the requirements of Class A in accordance with Chapter 10, based on the maximum thickness intended for use.
- (3) MCM shall be completely separated from the building interior by a thermal barrier meeting the requirements in 48.3.3.

Detail FR-8019

37.4.4.1

The thermal barrier specified in 37.4.4(3) shall not be required where MCM meets either of the following conditions:

- (1) MCM is installed as part of a balcony or similar architectural appendage or as exterior trim and is not part of a common wall with the building interior.
- (2) MCM is approved for the specific installation, based on tests conducted using the maximum thickness intended for use in accordance with one of the following:
 - (a) NFPA 286, with the acceptance criteria of 10.2.3.2
 - (b) UL 1040, *Fire Test of Insulated Wall Construction*
 - (c) The room test in ANSI/FM Approvals 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials*
 - (d) UL 1715, *Fire Test of Interior Finish Material*

37.4.4.2

MCM tested in accordance with 37.4.4.1(2) shall be tested as an assembly in the manner intended for use that shall include joints, seams, fasteners, and other construction details typical of the intended installation.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 10:40:08 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter. This PI simply clarifies that what is tested to NFPA 285 (and must pass the corresponding test criteria) is not the MCM itself but the entire exterior wall assembly.

Note: No changes are being made to section 37.4.4.1; the changes shown have been generated by Terra.

Response FR-8005-NFPA 5000-2024
Message:

[Public Input No. 15-NFPA 5000-2024 \[Section No. 37.4.4\]](#)



First Revision No. 8006-NFPA 5000-2024 [Section No. 37.5]

37.5 Exterior Insulation and Finish Systems (EIFS).

Exterior insulation and finish systems (EIFS) used in exterior walls shall be in accordance with Section 37.5.

37.5.1 General.

The provisions of Section 37.5 shall govern the materials, construction, and quality of EIFS for use as non-load-bearing barrier walls and exterior cladding systems.

37.5.2* Performance.

EIFS shall be constructed such that they meet the performance requirements contained in ASTM E2568, *Standard Specification for PB Exterior Insulation and Finish Systems*.

37.5.3 Vertical and Lateral Flame Propagation.

Exterior wall assemblies containing EIFS systems shall be tested and comply with the requirements of NFPA 285.

37.5.4 Reference Standard.

EIFS shall be specified and installed in accordance with ANSI/EIMA 99-A, *Standard for Exterior Insulation and Finish Systems (EIFS) and EIFS with Drainage*.

37.5.5 Expansion Joints.

Expansion joints shall be provided in EIFS in the following locations:

- (1) Where EIFS adjoin dissimilar construction
- (2) Where building expansion joints occur
- (3) Where prefabricated panels abut one another
- (4) Where the substrate changes
- (5) Where significant structural movement occurs due to changes in roofline, building shape, or structural system
- (6) In the floor lines in multilevel wood frame construction

37.5.6 Quality Assurance.

37.5.6.1 Manufacturer.

The manufacturer shall furnish a report certifying that the materials are in conformance with ANSI/EIMA 99-A, *Standard for Exterior Insulation and Finish Systems (EIFS) and EIFS Drainage*, this ~~Code~~ code, and the contract documents.

37.5.6.2 Contractor.

The installing contractor shall have a certificate of instruction from the respective EIFS manufacturer's applicator training program.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 10:43:38 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the task group to add this language. ASTM E2568 states that the "system fire performance" shall comply with NFPA 285 "as required". This change adds language that points to NFPA 285 for this criteria.

Response Message: FR-8006-NFPA 5000-2024

[Public Input No. 66-NFPA 5000-2024 \[Section No. 37.5\]](#)



First Revision No. 8007-NFPA 5000-2024 [Section No. 37.6.3]

37.6.3 Vertical and Lateral Flame Propagation.

The exterior wall assembly containing the HPL system shall be tested to and comply with the requirements of NFPA 285.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 10:46:54 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the task group to add this language. This change clarifies that the full exterior wall assembly, and not the HPL system alone, must be tested.

Response Message: FR-8007-NFPA 5000-2024

[Public Input No. 16-NFPA 5000-2024 \[Section No. 37.6.3\]](#)



First Revision No. 8008-NFPA 5000-2024 [Section No. 37.7.3]

37.7.3 Vertical and Lateral Flame Propagation.

Where installed on buildings that are greater than 40 ft (12.19 m) above grade plane, the exterior wall assembly containing the IMP system shall be tested to and comply with the requirements of NFPA 285, unless the insulation contained in the IMP system is only noncombustible insulation in accordance with 7.1.4.1.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 10:53:49 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the task group to add this language. This change clarifies that the entire assembly, containing the IMP, is to be tested.

Response Message: FR-8008-NFPA 5000-2024

[Public Input No. 17-NFPA 5000-2024 \[Section No. 37.7.3\]](#)



First Revision No. 8009-NFPA 5000-2024 [Section No. 37.8]

37.8 Exterior Wall Coverings Manufactured Using Combustible Adhesives Used in Exterior Wall Assemblies.

37.8.1 General.

Exterior wall coverings manufactured using a combustible adhesive to laminate a noncombustible core with noncombustible facing materials intended for use in exterior wall assemblies on buildings shall comply with Section 37.8 , in addition to other applicable requirements of the code.

37.8.2 Vertical and Lateral Flame Propagation.

Where the exterior wall coverings in 37.8.1 are installed on buildings of Type I, Type II, Type III, or Type IV construction that are greater than 40 ft (12.192 m) in height above grade plane, the exterior wall assembly shall be tested to and comply with the requirements of NFPA 285 .

37.8.2.1

Such testing shall be performed on exterior wall assemblies that include the exterior wall covering with the adhesive level at the maximum application rate intended for use.

37.8.3 Fire Resistance Rating.

The exterior wall coverings manufactured using combustible adhesives shall not reduce the fire resistance rating of the exterior wall to which the system is attached.

37.8.4 Combustibility.

Combustibility shall be determined in accordance with 7.1.4 .

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
5000_SCM_FR-8009_37.8.docx		

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 10:58:20 EDT 2024

Committee Statement

Committee Statement: The committee agreed to add the PI language with two modifications. The modifications include changing "metal core" to "noncombustible core" in 37.8.1, and removed the word "system" after "combustible adhesives" in 37.8.3.

Overall, the committee determined that NFPA 5000 does not address exterior wall assemblies where the exterior wall covering includes noncombustible cores with noncombustible facing materials which are adhered with combustible adhesives. The addition of this section adds these requirements to next edition of NFPA 5000.

The change from "metal core" to "noncombustible core" broadens the possible use of other materials that should be considered. The word "system" was duplicative and subsequently removed.

Response FR-8009-NFPA 5000-2024

Message:

[Public Input No. 85-NFPA 5000-2024 \[Section No. 37.8\]](#)



First Revision No. 8039-NFPA 5000-2024 [Section No. 38.1.1]

38.1.1 Special Definitions.

A list of special terms used in this chapter follows is provided in 38.1.1.1 through 38.1.1.2 with section references to Chapter 3. ~~The terms are extracted with permission from ASTM D1079, *Standard Terminology Relating to Roofing and Waterproofing* .~~

38.1.1.1 Built-Up Roofing.

~~A continuous, semiflexible membrane consisting of plies of saturated felts, coated felts, fabrics or mats assembled in place with alternate layers of bitumen, and surfaced with mineral aggregate, bituminous materials, or a granule surfaced sheet (abbreviation, BUR).~~ [~~ASTM D1079: 2.1~~] See 3.3.69 .

38.1.1.2 Coal Tar.

~~A dark brown to black cementitious material produced by the destructive distillation of coal.~~ [~~ASTM D1079: 2.1~~] See 3.3.104 .

38.1.1.3 Flashing.

~~The system used to seal membrane edges at walls, expansion joints, drains, gravel stops, and other places where the membrane is interrupted or terminated. Base flashing covers the edges of the membrane. Cap or counterflashing shields the upper edges of the base flashing.~~ [~~ASTM D1079: 2.1~~] See 3.3.253 .

38.1.1.4 Gravel.

~~Coarse, granular aggregate, with pieces larger than sand grains, resulting from the natural erosion of rock.~~ [~~ASTM D1079: 2.1~~] See 3.3.295 .

38.1.1.5 Inorganic.

~~Being or composed of matter other than hydrocarbons and their derivatives, or matter that is not of plant or animal origin.~~ [~~ASTM D1079: 2.1~~] See 3.3.356 .

38.1.1.6 Metal Roof Panel.

An interlocking metal sheet having a minimum installed weather exposure of 3 ft² (0.28 m²) per sheet.

38.1.1.7 Metal Roof Shingle.

A metal sheet having an installed weather exposure of less than 3 ft² (0.28 m²) per sheet.

38.1.1.8 Organic.

~~Being or composed of hydrocarbons or their derivatives, or matter of plant or animal origin.~~ [~~ASTM D1079: 2.1~~] See 3.3.467 .

38.1.1.9 Roof Assembly.

The component(s) above the roof structural framing, including the roof deck, vapor barrier, insulation, roof cover, coatings, toppings, or any combination thereof.

38.1.1.10 Roof Covering.

The membrane, which may can also be the roof assembly, that resists fire and provides weather protection to the building against water infiltration, wind, and impact.

38.1.1.11 Sloped Glazing.

Any installation of glass or other transparent, translucent, or opaque glazing material installed at a slope of 15 degrees or more from the vertical plane, including glazing materials in skylights, roofs, and sloped walls.

38.1.1.12 Vapor Retarder.

~~A layer of material or a laminate used to appreciably reduce the flow of water vapor into the roofing system. [**ASTM D1079**: 2.1] See 3.3.679 .~~

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
BLD-SCM_38.1.1.docx		

Submitter Information Verification

Committee: BLD-SCM

Submission Date: Wed Jul 10 11:32:55 EDT 2024

Committee Statement

Committee Statement: Updated text for referenced terms to ASTM D1079.

Response Message: FR-8039-NFPA 5000-2024

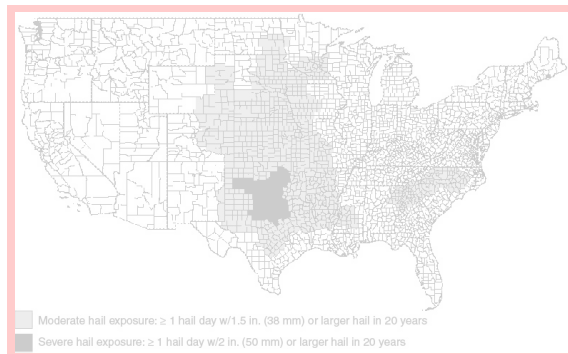


First Revision No. 8040-NFPA 5000-2024 [Section No. 38.5.1]

38.5.1* Hail Exposure Maps.

The A hail exposure map shown in Figure 38.5.1 shall be used to determine the hail exposure specified in 38.5.1.1 and 38.5.1.2.

Figure 38.5.1 Hail Exposure Map. (Source: Haag Engineering)



A.38.5.1

Consult with your authority having jurisdiction for an approved map. In the absence of an approved map, see FEMA's hail risk index at <https://hazards.fema.gov/nri/hail>.

38.5.1.1 Moderate Hail Areas.

Areas subject to a minimum of one hail day with 1.5 in. (38 mm) hail or greater in a 20-2042 year period shall be considered to have moderate hail exposure.

38.5.1.2 Severe Hail Areas.

Areas subject to a minimum of one hail day with 2 in. (50 mm) hail or greater in a 20-year period shall be considered to have severe hail exposure.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
BLD-SCM_38.5.docx		
BLD-SCM_38.5.1_FR-8040.docx	For prod use	

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Wed Jul 10 11:36:26 EDT 2024

Committee Statement

Committee Statement: Removes reference to copyright material and adds annex with reference to FEMA's website for guidance.

**Response
Message:**

FR-8040-NFPA 5000-2024



First Revision No. 8041-NFPA 5000-2024 [Section No. 38.8.2]

38.8.2

Insulation shall be in accordance with ~~NFPA 900~~ the approved energy code .

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Wed Jul 10 11:37:24 EDT 2024

Committee Statement

Committee Statement: NFPA 900 has been withdrawn. Utilizing the applicable and approved energy code provides clear guidance for the user of NFPA 5000. This will remove the reference to NFPA 900 within Chapter 2.

Response Message: FR-8041-NFPA 5000-2024



First Revision No. 8028-NFPA 5000-2024 [New Section after 38.12.3.2]

38.13 Lightning Protection Systems.

38.13.1

Where provided, components of lightning protection systems shall be installed in accordance with Section 38.13 and Section 52.4 .

38.13.2

Components of lightning protection systems attached to metal edge systems or gutters shall be installed with compatible brackets, fasteners, or adhesives, in accordance with the metal edge systems or gutter manufacturer's installation instructions.

38.13.3

Components of lightning protection systems directly attached to or through the roof covering shall be installed in accordance with Chapter 38 and the roof covering manufacturer's installation instructions.

38.13.4

Flashing shall be installed in accordance with the roof assembly manufacturer's installation instructions and Section 38.7 and Section 38.9 where the lightning protection system installation results in a penetration through the roof covering.

38.13.5

Installation shall be directed by a registered design professional when the metal edge system manufacturer, gutter manufacturer, or roof covering manufacturer is unknown.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 17:47:19 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification. The text was rewritten to comply with the NFPA MOS. SPRI references were removed and installation criteria for unknown manufacturers was consolidated. The committee determined that these requirements were needed as NFPA 5000 does not currently provide requirements for lighting protection systems.

Response Message: FR-8028-NFPA 5000-2024

Public Input No. 87-NFPA 5000-2024 [New Section after 38.12.3.2]

**First Revision No. 8029-NFPA 5000-2024 [Section No. 40.3.10]****40.3.10 Steel Construction.**

Structural tests and inspections for steel materials, fabrication, and erection shall be as required by the following:

- (1) Structural steel construction shall comply with ANSI/AISC 360, *Specification for Structural Steel Buildings*, and ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*, as applicable.
- (2) Structural stainless steel construction shall comply with ANSI/AISC 370, *Specification for Structural Stainless Steel Buildings*.
- (3) Cold-formed steel light-frame construction shall comply with AISI S240, *North American Standard for Cold-Formed Steel Structural Framing*.
- (4) Steel deck construction shall comply with ANSI/SDI-QA/QC, *Standard for Quality Control and Quality Assurance for Installation of Steel Deck*.
- (5) Other steel construction shall comply with Table 40.3.10.

Table 40.3.10 Other Steel Construction

<u>Item</u>	<u>Scope (frequency determined by RDP responsible for design)</u>
Steel construction quality control review	Review contractor's field quality control procedures. Review frequency and scope of field testing and inspections.
Fabricator certification/quality control procedures	Review each fabricator's quality control procedures.
Open web steel joists	Inspect for size, placement, bridging, bearing, and connection to structure. Visually inspect all field welds of a minimum of 5 percent of the joists, randomly selected.
Expansion and adhesive anchors	Review installation procedures for both mechanical anchors and adhesive anchors. Verify that materials are suitable for job conditions.
Field correction of fabricated items	Review documentation of repair approved by the RDP responsible for design, and verify completion of repairs.

Submitter Information Verification

Committee: BLD-SCM

Submission Date: Tue Jul 09 18:28:33 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter. This proposal adds a reference to AISC 370, which was adopted last cycle as a new reference in NFPA 5000, Chapter 44. AISC 370, Chapter N includes comprehensive requirements for quality control, quality assurance, and nondestructive testing for structural stainless steel systems for buildings and other structures.

Response FR-8029-NFPA 5000-2024

Message:

[Public Input No. 44-NFPA 5000-2024 \[Section No. 40.3.10\]](#)



First Revision No. 8021-NFPA 5000-2024 [Section No. 41.2.1]

41.2.1 Structural Concrete with Other Than Glass Fiber Reinforced Polymer (GFRP) Reinforcement .

The design and construction of cast-in-place or precast structural elements of plain concrete or ~~reinforced~~ concrete with steel reinforcement , including prestressed concrete, shall comply with ACI 318, *Building Code Requirements for Structural Concrete*, unless modified by other provisions of this chapter and the following:

- (1) The basement, foundation, and above-grade walls of one- and two-family dwellings using insulating concrete forms (ICF) shall be permitted to be designed and constructed in accordance with the provisions of PCA NRMCA 100, Prescriptive Design of Exterior Concrete Walls for One- and Two-Family Dwellings, provided that the building meets the limitations of Table 1.1 of that document.
- (2) The basement, foundation, and above-grade walls of one- and two-family dwellings using conventional forms with flat surfaces shall be permitted to be designed and constructed in accordance with the provisions of PCA NRMCA 100 for flat ICF walls, provided that the building meets the limitations of Table 1.1 of that document.
- (3) The footings, foundation walls, and slabs-on-ground of one- and two-family dwellings using conventional forms shall be permitted to be designed and constructed in accordance with the provisions of ACI 332, *Code Requirements for Residential Concrete*.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 14:49:01 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter for two items. First, the committee updated the standards developer for this document, as provided in (1) and (2). See the submitter's substantiation for further reference. Second, the committee provided changes to the scoping language consistent with the PI-50. Further, modification to the title was made to clarify its applicability and be consistent with PI-55.

Response Message: FR-8021-NFPA 5000-2024

Public Input No. 1-NFPA 5000-2024 [Section No. 41.2.1]



First Revision No. 8024-NFPA 5000-2024 [Section No. 41.2.2]

41.2.2 Slabs-on-Ground.

41.2.2.1

~~The design and construction of slabs-on-ground that transmit vertical loads or lateral forces from other parts of the structure to the soil shall comply with ACI 318 and Section 41.7 .~~

41.2.2.2

~~Slabs-on-ground that do not transmit vertical loads or lateral forces from other parts of the structure to the soil shall comply with Section 41.7 .~~

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 16:21:30 EDT 2024

Committee Statement

Committee Statement: The committee agreed with this change, and reflects the actions taken on PI-54.

Response Message: FR-8024-NFPA 5000-2024

[Public Input No. 52-NFPA 5000-2024 \[Section No. 41.2.2\]](#)



First Revision No. 8023-NFPA 5000-2024 [New Section after 41.7]

41.7.4 Structural Slabs-on-Ground.

The design and construction of slabs-on-ground that transmit vertical loads or lateral forces from other parts of the structure to the soil shall comply with ACI 318, *Building Code Requirements for Structural Concrete* .

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 16:19:59 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter. The intent of this public input is to relocate the provisions for slabs-on-ground found in Section 41.2.2 to Section 41.7, Slabs-on-Ground. This eliminates unnecessary confusion in Chapter 41, where provisions for slabs-on-ground are currently found in both Sections 41.2.2 and 41.7.

Response Message: FR-8023-NFPA 5000-2024

Public Input No. 54-NFPA 5000-2024 [New Section after 41.7]



First Revision No. 8025-NFPA 5000-2024 [Section No. 41.7.3.1]

41.7.3.1

A vapor retarder shall be placed between the top of the subgrade or base material and the bottom of the slab and comply with one of the following conditions: having a perm rating not exceeding 1 or a 10 mil (0.25 mm) thickness of polyethylene shall be placed between the top of the subgrade or base material and the bottom of the slab.

- (1) Conform to Class A, B, or C requirements of ASTM E1745 *Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*
- (2) Have a perm rating not exceeding 1
- (3) Consist of 10 mil (0.25 mm) thickness of polyethylene

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
SCM_PI-51_Language.docx		
5000_SCM_FR-8025_41.7.3.1.docx	For prod use	

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 16:27:06 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification. This section was reformatted as a list to comply with the NFPA MOS. This change was made to add the allowance of Class A, B or C requirements of ASTM E1745 while retaining the existing options.

Response Message: FR-8025-NFPA 5000-2024

Public Input No. 51-NFPA 5000-2024 [Section No. 41.7.3.1]



First Revision No. 8030-NFPA 5000-2024 [Section No. 44.3]

44.3 Structural Stainless Steel.

The design, fabrication, and erection of ~~austenitic and duplex~~ structural stainless steel shall be in accordance with ANSI/AISC 370, *Specification for Structural Stainless Steel Buildings*.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 18:30:00 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter. The addition of "structural" matches the scope indicated in the section title.

Response Message: FR-8030-NFPA 5000-2024

[Public Input No. 45-NFPA 5000-2024 \[Section No. 44.3\]](#)



First Revision No. 8036-NFPA 5000-2024 [Section No. 45.5.4]

45.5.4* End-Jointed Lumber.

~~Approved end-jointed lumber shall be permitted to be used interchangeably with solid-sawn members of the same species and grade.~~

A.45.5.4

The prohibition of end-jointed lumber for applications beyond supporting vertical loads when the grade mark specifies “vertical use only” is essential to ensure structural integrity and safety in construction projects. This restriction should be clearly outlined in standard guidelines to prevent potential risks associated with using end-jointed lumber inappropriately. By including this restriction on in the guidelines, construction professionals and stakeholders can better understand the limitations of end-jointed lumber that is specified for vertical load use and make informed decisions to uphold building standards and regulations.

45.5.4.1

Approved end-jointed lumber shall be permitted to be used interchangeably with solid-sawn members of the same species and grade.

45.5.4.1.1

End-jointed lumber used in an assembly required to have a fire resistance rating shall have the designation “Heat Resistant Adhesive” or “HRA” included in the grade mark.

45.5.4.1.2

End-jointed lumber marked “stud use only” or “vertical use only” shall be limited for use in accordance with requirements for the grade mark.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
SCM_PI-79_Language.docx		
5000_SCM_FR-8036_45.5.4.docx		

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Wed Jul 10 11:07:33 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification. The PI was rewritten as separate requirements to comply with the NFPA MOS, with the second paragraph provided as annex material. This change provides updated requirements based on industry standards and provides clarification. By providing these requirements, construction professionals and stakeholders can better understand the limitations of end-jointed lumber which is specified for vertical load use and make informed decisions to uphold building standards and regulations.

Response FR-8036-NFPA 5000-2024

Message:

[Public Input No. 79-NFPA 5000-2024 \[Section No. 45.5.4\]](#)



First Revision No. 8026-NFPA 5000-2024 [Section No. 45.5.12.1]

45.5.12.1

Preservative-treated wood shall comply with both of the following:

- (1) All lumber, timber, plywood, piles, and poles supporting permanent structures and required by 45.6.9 to be preservative-treated shall conform to the requirements of the following applicable AWPAs standards U1, Use Category System: User Specification For Treated Wood, for the species, product, preservative, and end use:

~~C1, Standard for Preservative Treatment of All Timber Products by Pressure Processes~~

~~C2, Standard for the Preservative Treatment of Lumber, Timber, Bridge Ties, and Mine Ties by Pressure Processes~~

~~C3, Piles — Preservative Treatment by Pressure Processes~~

~~C4, Poles — Preservative Treatment by Pressure Processes~~

~~C9, Plywood — Preservative Treatment by Pressure Processes~~

~~C14, Wood for Highway Construction — Preservative Treatment by Pressure Processes~~

~~C15, Wood for Commercial-Residential Construction — Preservative Treatment by Pressure Processes~~

~~C16, Wood Used on Farms — Preservative Treatment by Pressure Processes~~

~~C22, Lumber and Plywood for Permanent Wood Foundations — Preservative Treatment by Pressure Processes~~

~~C23, Round Poles and Posts Used in Building Construction — Preservative Treatment by Pressure Processes~~

~~C24, Sawn Timber Piles Used for Residential and Commercial Building~~

~~C28, Standard for Preservative Treatment of Structural Glued Laminated Members and Lamination Before Gluing of Southern Pine, Coastal Douglas Fir, Hemfir, and Western Hemlock by Pressure Processes~~

~~C31, Lumber Used Out of Contact with the Ground and Continuously Protected from Liquid Water — Treatment by Pressure Processes~~

~~C33, Standard for Preservative Treatment of Structural Composite Lumber by Pressure Processes~~

~~M4, Standard for the Care of Preservative-Treated Wood Products~~

Preservatives shall conform to the following AWPAs standards:

~~P1/P13, Standard for Creosote Preservative~~

~~P2, Standard for Creosote Solutions~~

~~P5, Standard for Waterborne Preservatives~~

~~P8, Standard for Oil-Borne Preservatives~~

~~P9, Standards for Solvents and Formulations for Organic Preservative Systems~~

- (2) All handling, storage, fabrication and field treatment shall be in accordance with AWPAs M4, Standard for the Care of Preservative-Treated Wood Products.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
5000_SCM_FR-8026_45.5.12.1.docx		

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 17:17:50 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification. The existing reference standards were deleted due to their removal from publication and consolidation of information into two remaining reference standards. Modification of language was made for clarity, however, no intent was changed.

Response Message: FR-8026-NFPA 5000-2024

[Public Input No. 81-NFPA 5000-2024 \[Section No. 45.5.12.1\]](#)



First Revision No. 8043-NFPA 5000-2024 [Section No. 45.5.16.1]

45.5.16.1*

Fire-retardant-treated wood shall be a wood product impregnated with chemicals by a pressure process or other means during manufacture meeting the requirements in 45.5.16.1.2 through 45.5.16.1.2.5 45.5.16.1.8 . [703:4.1.1]

45.5.16.1.1

Materials treated by means other than those specified in 45.5.16.1 shall be considered a fire-retardant-coated material and shall meet the requirements of fire-retardant coatings in Chapter 5 of NFPA 703. [703:4.1.1.1]

45.5.16.1.2*

Fire-retardant-treated wood shall be tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*, with the test extended from 10 minutes to 30 minutes . [703:4.1.1.2]

45.5.16.1.2.3

~~A wood product that has been impregnated with chemicals by a pressure process or other means during manufacture and has met the requirements of 45.5.16.1.2.1 or 45.5.16.1.2.2 when tested on the front and back faces in accordance with ASTM E2768, *Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)* , shall be considered fire-retardant-treated wood.~~
[703 :4.1.1.2.3]

45.5.16.1.2.4

~~Wood structural panels shall be permitted to test only the front and back faces.~~
[703: 4.1.1.2.4]

45.5.16.1.2.5

~~Wood structural panels that meet all of the following conditions shall be considered fire-retardant-treated wood:~~

~~They have been impregnated with chemicals.~~

~~They have been tested on the front and back faces in accordance with ASTM E2768, *Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)* , with a ripped or cut longitudinal gap of $\frac{1}{8}$ in. (3.2 mm).~~

~~They are listed to meet the requirements of 45.5.16.1.2.1 and 45.5.16.1.2.2 .~~

[703: 4.1.1.2.5]

45.5.16.1.3

As an alternative to testing in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials* , or UL 723, *Test for Surface Burning Characteristics of Building Materials* , fire-retardant-treated wood shall be tested in accordance with ASTM E2768, *Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)* . [703: 4.1.1.3]

45.5.16.1.4

Specimen preparation and mounting of wood products for the tests in 45.5.16.1.2 or 45.5.16.1.3 shall be conducted in accordance with ASTM E2579, *Standard Practice for Specimen Preparation and Mounting of Wood Products to Assess Surface Burning Characteristics* . [703: 4.1.1.4]

45.5.16.1.5

The tests in 45.5.16.1.2 or 45.5.16.1.3 shall be conducted on both the front and back faces. [703: 4.1.1.5]

45.5.16.1.6

Fire-retardant-treated wood shall have a listed flame spread index of 25 or less. [703:4.1.1.2.4 4.1.1.6]

45.5.16.1.7

The flame front during the entire test in 45.5.16.1.2 or 45.5.16.1.3 shall not progress more than 10.5 ft (3.2 m) beyond the centerline of the burners at any time during the test, when the test is continued for an additional 20-minute period . [703:4.1.1.2.2 4.1.1.7]

45.5.16.1.8

Fire-retardant-treated wood structural panels shall be tested on the front and back faces with a ripped or cut longitudinal gap of $\frac{1}{8}$ in. (3.2 mm) in accordance with the tests in 45.5.16.1.2 or 45.5.16.1.3 and shall be listed to meet the requirements of 45.5.16.1.6 and 45.5.16.1.7 .

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
SCM_FR-8043_Clean_Copy.docx		
5000_SCM_FR-8043_45.5.16.1.docx	For prod use	

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Wed Jul 10 12:02:55 EDT 2024

Committee Statement

Committee Statement: This change matches the text the committee provided in NFPA 703, from which it is extracted.

Response Message: FR-8043-NFPA 5000-2024



First Revision No. 8027-NFPA 5000-2024 [Section No. 45.6.2.1]

45.6.2.1

A continuous load path shall be provided to transfer all ~~gravity, seismic, and wind~~ loads from the roof, wall, and floor systems to the foundation.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 17:31:29 EDT 2024

Committee Statement

Committee Statement: The committee modified the submitter's PI to remove all specific types of loads from this requirement. The committee determination is that all loads need to be resolved back to the foundation.

Response Message: FR-8027-NFPA 5000-2024

[Public Input No. 26-NFPA 5000-2024 \[Section No. 45.6.2.1\]](#)



First Revision No. 8020-NFPA 5000-2024 [Section No. 48.4.4.1]

48.4.4.1

The requirements of 48.3.3 through 48.4.3 shall be permitted to be replaced by special testing, and the approval of foam plastic shall be based on large-scale tests such as, but not limited to, the following:

- (1) UL 1715, *Fire Test of Interior Finish Material*, including smoke measurements, with total smoke release not to exceed 10,764 ft² (1000 m²)
- (2) UL 1040, *Fire Test of Insulated Wall Construction*
- (3) The room test in ANSI/FM Approvals 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials*
- (4) NFPA 286 with the acceptance criteria of 10.2.3.2

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 14:44:53 EDT 2024

Committee Statement

Committee Statement: The committee made this change to correlate to changes made via the First Revision of PI-159.

Response Message: FR-8020-NFPA 5000-2024



First Revision No. 8018-NFPA 5000-2024 [Section No. 48.4.4.3]

48.4.4.3

Cellular or foamed plastic materials tested in accordance with UL 1040, *Fire Test of Insulated Wall Construction*, or the room test in ANSI/FM Approvals 4880, American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials, shall also be tested for smoke release using NFPA 286, with the acceptance criterion of total smoke release not exceeding 10,764 ft² (1000 m²).

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 14:27:19 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the submitter with modification to retain the UL 1040 test while limiting the use of FM 4880 to the room test as an alternative. The annex material was not included in this change.

Response Message: FR-8018-NFPA 5000-2024

[Public Input No. 159-NFPA 5000-2024 \[Section No. 48.4.4.3\]](#)



First Revision No. 8014-NFPA 5000-2024 [New Section after 48.10.7]

48.11 Fiber-Reinforced Polymer Materials Used on Exterior Walls.

48.11.1

Where fiber-reinforced polymer materials are used on exterior walls, the exterior wall assembly containing such materials shall comply with the requirements of 48.4.1.1 through 48.4.1.5 .

48.11.2

Where fiber-reinforced polymer materials are used on exterior walls, the exterior wall assembly containing such materials shall comply with the requirements of 48.4.1.8 .

48.11.3

The fiber reinforced polymer material layer shall be protected by fire blocking in accordance with 8.14.2 .

48.11.4

Compliance with the requirements associated with 48.11.1 shall not be required where the fiber-reinforced polymer material is installed on exterior walls of buildings of Type I, II, III, or IV construction of any height if all of the following applies:

- (1) The aggregate amount of fiber-reinforced polymer material shall not exceed a total of 20 percent of the area of the specific wall on which it is used.
- (2) No single architectural element of fiber reinforced polymer material shall exceed 10 percent of the area of the specific wall on which it is used.
- (3) The fiber reinforced polymer material shall exhibit a flame spread index not exceeding 25 when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials* , or UL 723, *Test for Surface Burning Characteristics of Building Materials* .
- (4) The fiber-reinforced polymer material shall either be attached directly to a noncombustible substrate or it shall be separated from the remainder of the exterior wall by one of the following:
 - (a) Corrosion-resistant steel with a minimum metal thickness of 0.016 in. (0.41 mm).
 - (b) Aluminum with a minimum thickness of 0.019 in. (0.5 mm).

48.11.5

Compliance with the requirements associated with 48.11.1 shall not be required where the fiber-reinforced polymer material is installed on exterior walls of buildings that are 40 ft (12.19 m) or less above grade if all of the following applies:

- (1) When the fire separation distance from the adjacent building is 5 ft (15.24 m) or less, the area covered by fiber-reinforced polymer material on the exterior wall shall be 10 percent or less of the area of the exterior wall.
- (2) When the fire separation distance from the adjacent building exceeds 5 ft (15.24 m) there shall be no limitation on the area of exterior wall covered by fiber-reinforced polymer material.
- (3) The fiber-reinforced polymer material shall exhibit a flame spread index not exceeding 200 when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*.
- (4) The flame spread index requirement of 48.11.5(3) shall not apply to paints or coatings with a thickness of less than 0.036 in. (0.9 mm) that have been applied directly to the surface of the fiber-reinforced polymer material.

Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 12:29:59 EDT 2024

Committee Statement

Committee Statement: The committee agreed with the task group to add this language. The addition of this section provides requirements for fiber reinforced polymer materials used in exterior wall assemblies, which are currently not addressed. These requirements are consistent with the requirements for foam plastic materials found within Chapter 48.

Response Message: FR-8014-NFPA 5000-2024

Public Input No. 90-NFPA 5000-2024 [New Section after 48.10.7]



First Revision No. 8017-NFPA 5000-2024 [Section No. A.3.3.701.2]

A.3.3.702.2 Fire-Retardant-Treated Wood.

The definition in [3.3.702.2](#) explains the concept of fire-retardant-treated wood, but the actual associated criteria are found in Chapter 4 of [NFPA 703](#) . Wood or wood products with topically applied materials or chemicals are not fire-retardant-treated wood. [[703](#), [2024](#)]

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
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Submitter Information Verification

Committee: BLD-SCM

Submittal Date: Tue Jul 09 14:25:39 EDT 2024

Committee Statement

Committee Statement: The committee made this change to correlate with changes as provided within NFPA 703.

Response Message: FR-8017-NFPA 5000-2024

[Public Input No. 39-NFPA 5000-2024 \[Section No. A.3.3.701.2\]](#)