

# NFPA® 268

## Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source

### 2012 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471  
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**NFPA® 268**

**Standard Test Method for**

**Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source**

**2012 Edition**

This edition of NFPA 268, *Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source*, was prepared by the Technical Committee on Fire Tests. It was issued by the Standards Council on December 13, 2011, with an effective date of January 2, 2012, and supersedes all previous editions.

This edition of NFPA 268 was approved as an American National Standard on January 2, 2012.

**Origin and Development of NFPA 268**

The 1996 edition represented the first edition for a standard that addressed the determination of ignitability characteristics of exterior wall assemblies. The test method incorporated a radiant heat energy source. At the time this document was published, there were no standardized test methods available within the standard writing organizations, and this document complemented the fire test methods available within the NFPA standards. The results of this test can be used to measure and describe properties of materials in controlled laboratory conditions and also can be used as an element of a fire risk assessment.

The 2001 edition incorporated the new format and editorial changes as required to satisfy the *Manual of Style for NFPA Technical Committee Documents*. Revisions to 11.4.2, 11.4.2.1, and 12.1(10)(c) were made to incorporate the specific time period that was originally within the definition. No significant revisions were made in the 2007 edition.

The 2012 edition has been revised editorially. Referenced publications have been revised to reference the most up-to-date documents.

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## NFPA 268

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# Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source

## 2012 Edition

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**NOTICE:** An asterisk (\*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

Changes other than editorial are indicated by a vertical rule beside the paragraph, table, or figure in which the change occurred. These rules are included as an aid to the user in identifying changes from the previous edition. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet (•) between the paragraphs that remain.

Information on referenced publications can be found in Chapter 2 and Annex C.

## Chapter 1 Administration

### 1.1 Scope.

**1.1.1** This fire test response standard describes a method for determining the propensity of ignition of exterior wall assemblies from exposure to  $12.5 \text{ kW/m}^2$  ( $1.10 \text{ Btu/ft}^2\text{-sec}$ ) radiant heat in the presence of a pilot ignition source.

**1.1.2** This test method evaluates the propensity of ignition of an exterior wall assembly where subjected to a minimum radiant heat flux of  $12.5 \text{ kW/m}^2$  ( $1.10 \text{ Btu/ft}^2\text{-sec}$ ). This method determines whether ignition of an exterior wall assembly occurs when the wall is exposed to a specified radiant heat flux, in the presence of a pilot ignition source, during a 20-minute period.

**1.1.3** This test method utilizes a gas-fired radiant panel to apply a radiant heat flux of  $12.5 \text{ kW/m}^2$  ( $1.10 \text{ Btu/ft}^2\text{-sec}$ ) to a representative sample of an exterior wall assembly while the test specimen is exposed simultaneously to a pilot ignition source.

**1.1.4** This test method applies to exterior wall assemblies having planar, or nearly planar, external surfaces.

**1.1.4.1** This method shall not be used to evaluate the fire resistance of wall assemblies, nor shall it be used to evaluate the effect of fires originating within the building or within the exterior wall assemblies.

**1.1.4.2** This method shall not be used to evaluate surface flame spread, nor shall it be used to evaluate the influence of openings for their propensity of ignition.

**1.2 Purpose.** This test shall be used for code and other regulatory purposes, for specification and design purposes, and for

research and development activities. (Additional information can be found in Section B.1.)

### 1.3 Application.

**1.3.1** This fire test response standard measures and describes the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and shall not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test shall be permitted to be used as an element of a fire risk assessment that takes into account all factors that are pertinent to an assessment of the fire hazard of a particular end use.

**1.3.2** In this procedure, the specimens are subjected to one or more specific sets of laboratory test conditions. If different test conditions are substituted, or the end-use conditions are changed, it is not possible for this test to predict all changes in the fire test response characteristics measured. Therefore, the results are valid only for the fire test exposure conditions described in this procedure.

**1.3.3** This fire test response standard involves hazardous materials, operations, and equipment. This standard does not address all of the safety problems associated with its applications. It is the responsibility of the user of the standard to establish appropriate safety and health practices and to determine the applicability of the regulatory limitations of the standard prior to use. Safety requirements for specific hazards are provided in Chapter 10.

**1.3.4** Ignitability is the propensity of an assembly to ignite and burn with a sustained flame for at least 5 seconds and is further qualified by considering the length of time from time of initial exposure to occurrence of the sustained flaming.

**1.4 Units and Formulas.** The values stated in SI units are considered the required values. The values in parentheses are for information only.

**1.5\* Precision or Bias.** This standard does not address either the precision or bias of this test method.

## Chapter 2 Referenced Publications

**2.1 General.** The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

### 2.2 NFPA Publications (Reserved)

### 2.3 Other Publications.

**2.3.1 ASTM Publications.** ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E 176, *Standard Terminology of Fire Standards*, 2010.

ASTM E 511, *Standard Test Method for Measuring Heat Flux Using a Copper-Constantan Circular Foil, Heat-Flux Gage*, 2007.

### 2.3.2 Other Publications.

*Merriam-Webster's Collegiate Dictionary*, 11th edition, Merriam-Webster, Springfield, MA, 2003.

**2.4 Extracts for References in Mandatory Sections (Reserved).**

