



Standard Test Method for Resistance to Wildfire Penetration of Eaves, Soffits and Other Projections¹

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1. Scope

1.1 This fire-test-response standard prescribes a method for qualitatively assessing the resistance to fire penetration of eave overhangs and other projections, such as the soffits of roof eaves and cantilevered floor projections, when exposed to direct flame impingement from a simulated external wildfire exposure, such as encountered in a “Wildland Urban Interface” scenario. This test method provides data suitable for comparing the relative performance of materials, which are used as the exposed underside surfaces of eave overhangs and other projections.

1.2 This test method measures the ability of eave overhangs and other projections to resist fire penetration from the exterior into the wall cavity or unexposed side of the test specimen under the conditions of exposure.

1.3 This test method is applicable to eave overhangs and other projections such as the soffits of roof eaves and cantilevered floor projections intended for use with either combustible or noncombustible building envelopes.

1.4 Limitations of the test method are listed in Section 5.

1.5 The values stated in metric units are to be regarded as the standard. Values in parentheses are for information only.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled laboratory conditions, but does not by itself incorporate all factors required for fire hazard or fire risk assessment of the materials, products or assemblies under actual fire conditions.*

1.8 *Fire testing is inherently hazardous. Adequate safeguards for personnel and property shall be employed in conducting these tests.*

¹ This test method is under the jurisdiction of ASTM Committee E05 on Fire Standards and is the direct responsibility of Subcommittee E05.14 on External Fire Exposures.

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1.9 *The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (including those in tables and figures) shall not be considered as requirements of the standard.*

2. Referenced Documents

2.1 ASTM Standards:²

- C1396 Specification for Gypsum Board
- D2898 Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing
- D4442 Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials
- D4444 Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters
- D6662 Specification for Polyolefin-Based Plastic Lumber Decking Boards
- D7032 Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails)
- E176 Terminology of Fire Standards
- E631 Terminology of Building Constructions
- E2707 Test Method for Determining Fire Penetration of Exterior Wall Assemblies Using a Direct Flame Impingement Exposure
- E2912 Test Method for Fire Test of Non-Mechanical Fire Dampers Used in Vented Construction
- E2886/E2886M Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement

2.2 Other Standards:

- ISO 13943 Fire Safety—Vocabulary³
- NFPA 286 Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth⁴

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland, <http://www.iso.org>.

⁴ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, <http://www.nfpa.org>.