Designation: E2886/E2886M – 20

An American National Standard

Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement[1]

This standard is issued under the fixed designation E2886/E2886M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This fire-test-response standard prescribes two individual methods to evaluate the ability of a gable end, crawl space (foundation) and other vents that mount on a vertical wall or in the under-eave area to resist the entry through the vent opening of embers and flame. The ability of such vents to completely exclude entry of flames or embers is not evaluated. Roof ridge and off-ridge (field) vents are excluded from this standard. Acceptance criteria are not provided in this standard.

NOTE 1—Test Method E2912 records information relevant to evaluate completely excluding the entry of flames through the venting device.

1.2 Ember entry and flame penetration are evaluated separately using different test procedures. A commentary and summary of the development of the ember test apparatus are given in Appendix X1.

1.3 These laboratory tests are used to evaluate the response of vents when subjected to ember and flame exposures under controlled conditions.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.5 Unless otherwise specified, the tolerance for dimensions in figures and text in this document shall be ±5 %.

1.6 This test method does not address interior fire spread.

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

1.8 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

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

1.10 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D1929 Test Method for Determining Ignition Temperature of Plastics

E108 Test Methods for Fire Tests of Roof Coverings

E176 Terminology of Fire Standards

E2257 Test Method for Room Fire Test of Wall and Ceiling Materials and Assemblies

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

2.2 *California Standards Code:*[3]

SFM 12-7A-1, Exterior Wall Siding and Sheathing, California Office of the State Fire Marshal, Sacramento, CA

SFM 12-7A-3, Under Eave, California Office of the State Fire Marshal, Sacramento, CA

3. Terminology

3.1 *Definitions*—For definitions of terms used in this test method refer to Terminology E176, Test Method E108, and Test Method E2912.

3.2 *Definitions of Terms Specific to This Standard:*

[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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[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] https://up.codes/viewer/california/ca-referenced-standards-code-2016

*A Summary of Changes section appears at the end of this standard