

Designation: E2989 - 19a

An American National Standard

# Standard Guide for Assessment of Continued Applicability of Reaction to Fire Test Reports Used in Building Regulation<sup>1</sup>

This standard is issued under the fixed designation E2989; 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 guide contains concepts that provide guidance for assessing the continued applicability of fire test reports for reaction to fire tests on materials or products used in building regulation.
- 1.2 This guide describes how sponsors and users of fire test reports for reaction to fire tests can assess whether existing reports continue being applicable: (1) to the materials or products currently being offered for use, and (2) to a building regulation that references a different edition of the test standard. This guide is intended to identify conditions that may cause a fire test report for reaction to fire tests, which was valid when prepared, to no longer be an appropriate tool upon which decisions about the materials or products can be based.
- 1.3 Application of this guide is dependent on the technical changes in the fire test standard that could impact the test results and thus the classification of the material or product. Application of this guide will be better facilitated when fire test standards include explicit documentation of significant historical technical changes.
- 1.4 This guide does not address fire test reports relating to fire resistance tests.
- 1.5 The determination of the validity of a fire test report is outside the scope of this guide.
- 1.6 Fire test reports or certificates on assemblies are outside the scope of this guide.
- 1.7 Fire test reports or certificates on materials or products listed, labeled and inspected by a certification agency are outside the scope of this guide.

Note 1—Certification agencies have their own criteria to assess the continued applicability of fire test reports.

1.8 Some concepts contained in this guide may not be applicable to all fire test reports since they are a function of the type of fire test conducted and of the type of material or product assessed.

- <sup>1</sup> This guide is under the jurisdiction of ASTM Committee E05 on Fire Standards and is the direct responsibility of Subcommittee E05.31 on Terminology and Services / Functions.
- Current edition approved Dec. 15, 2019. Published January 2020. Originally approved in 2015. Last previous edition approved in 2019 as E2989-19. DOI: 10.1520/E2989-19A

- 1.9 This fire standard cannot be used to provide quantitative measures.
- 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:<sup>2</sup>

E84 Test Method for Surface Burning Characteristics of Building Materials

E176 Terminology of Fire Standards

E2536 Guide for Assessment of Measurement Uncertainty in Fire Tests

2.2 Other Standards:<sup>3</sup>

ISO 13943 Fire Safety – Vocabulary

ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories

#### 3. Terminology

- 3.1 *Definitions*—For definitions of terms used in this guide and associated with fire issues, refer to the terminology contained in Terminology E176 and ISO 13943. In case of conflict, the terminology in Terminology E176 shall prevail.
  - 3.2 Definitions of Terms Specific to This Standard:
- 3.2.1 *certification agency (organization), n*—an accredited agency operating a product or material certification system that incorporates initial product testing, assessment and surveillance of a manufacturer's quality control system.
- 3.2.2 *labeled*, *adj*—equipment, materials or products to which has been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

- 3.2.3 *listed*, *adj*—equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material product or service meets identified standards or has been tested and found suitable for a specified purpose.
- 3.2.4 *user, n*—an individual or organization attempting to use a fire test report to demonstrate the aceptability of a material or product.
- 3.2.5 *requester*, *n*—an individual or organization responsible for determining the continued applicability of a material or product identified in a fire test report.
- 3.2.5.1 *Discussion*—A requester is often an authority having jurisdiction such as, a code official or a fire official.

## 4. Summary of Guide

- 4.1 This guide contains guidelines to evaluate the continued applicability of fire test reports for reaction to fire. Unless shown otherwise by the analysis in 4.3.1 through 4.3.3 it is expected that the fire test report continues to be applicable.
- 4.2 The procedures to be followed for assessing continued applicability of a fire test report may be a function of the type of fire test conducted and of the type of material or product assessed.
- 4.3 When considering the continued applicability of a fire test report, the questions in 4.3.1 through 4.3.3 should be asked.
- 4.3.1 Is the date of the edition of the standard referenced in the fire test report the same or different from the date referenced in the regulatory requirement?
- 4.3.1.1 If the dates are the same, the fire test report continues to be applicable if there has been no significant change in the material or product (see 4.3.3).
- 4.3.1.2 If the dates are different, Section 6 describes how to evaluate the continued applicability of the fire test report.
- 4.3.2 If the dates in 4.3.1 are different, are the technical differences between the two editions of the standard in 4.3.1 such as not to adversely affect the fire performance and the safety of the material or product in its end-use application?
- 4.3.2.1 Section 6 describes how to evaluate the question in 4.3.2. If the technical differences between the standards are such as not to adversely affect fire safety, the fire test report continues to be applicable unless there has been a significant change in the material or product (see 4.3.3).
- 4.3.3 Is the material or product listed in the fire test report different from the material or product currently being offered for use? If the material or product has changed, the analysis in Section 7 describes under what conditions the fire test report can continue to be applicable.

# 5. Significance and Use

- 5.1 This guide identifies concepts for assessing the continued applicability of fire test reports for reaction to fire tests as used in building regulation. It provides guidance to users and requesters of test reports for reaction to fire tests, developed in accordance with the fire response test standards, such as those from ASTM, UL, or NFPA, to determine the continued applicability of a fire test report for regulatory use. This guide is not applicable to test reports for fire resistance.
- 5.2 This guide assumes that a fire test report generated by a test laboratory represents the performance of the material or product in accordance with the fire test standard identified in the report at the time a specific material or product was tested.
- 5.3 This guide is not designed to assist in determining the continued applicability of a material or product that is listed, labeled, or given in an evaluation report.
- 5.4 This guide is not designed to assist in determining whether a test laboratory conducted the test reference in the fire test report in accordance with a standard test protocol.
- 5.5 This guide is not designed to assist in determining whether the fire test laboratory issuing a fire test report met the requirements of competence of testing and calibration methods.<sup>4</sup>
- 5.6 This guide is not designed to assist in determining the applicability of a fire test report with respect to the measurement uncertainty developed in accordance with Guide E2536.
- 5.7 Do not consider issuance of a new edition with only editorial changes (as notated in ASTM by "epsilon or  $\varepsilon$ ") or with a reapproval date, as a new edition containing a technical change.

## 6. Evaluating Changes in the Fire Test Standard

- 6.1 Codes or regulations typically specify the editions of referenced standards that are current at the time that the code or regulation is written.
- 6.2 Thus, when a requester requires that a material or product meet a certain fire test requirement, the code or regulation will normally contain the date of the required fire test standard.<sup>5</sup>
- 6.3 ASTM standards used in codes or regulations are sometimes revised by the addition of references to other ASTM standards.<sup>6</sup> Such referenced standards then become secondary regulatory references.
- 6.4 If the fire test report is based on the edition of the fire test standard referenced in the code or regulation, the material or product identified in the fire test report is applicable.

<sup>&</sup>lt;sup>4</sup> Regulatory authorities often mandate that private sector laboratories comply with voluntary laboratory accreditation. Compliance to ISO/IEC 17025 is a common benchmark for this purpose.

<sup>&</sup>lt;sup>5</sup> A code or regulation will reference a fire test standard by its edition, typically the year of its publication.

<sup>&</sup>lt;sup>6</sup> For example, Test Method E84 has been revised by the addition of several test specimen mounting practices, developed as separate standards, to streamline mounting methods.