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An American National Standard

# Standard Guide for Extension of Data From Fire Resistance Tests Conducted in Accordance with ASTM E 119[1]

This standard is issued under the fixed designation E2032; 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 covers the extension of fire resistance ratings obtained from fire tests performed in accordance with Test Method E119 to constructions that have not been tested. Test Method E119 evaluates the duration for which test specimens will contain a fire, retain their standard integrity, or both during a predetermined test exposure.

1.2 This guide is based on principles involving the extension of test data using simple considerations. The acceptance of these principles and their application is based substantially on an analogous worst case proposition.

1.3 These principles are only applicable to temperature conditions represented by the standard time-temperature curve described in Test Method E119. Test Method E119 is a fire-test-response standard.

1.4 The types of building constructions which are the subject of this guide are categorized as follows: beams; floor and roof assemblies; columns; and walls and partitions. Floor and roof assemblies include such assemblies with ceiling protective membranes.

1.5 The extension of test data using numerical calculations based on empirical data or theoretical models is not covered in this guide.

1.6 This guide does not cover the substitution of one proprietary material for another proprietary material, or materials for which fire test data are not presently available.

1.7 This guide does not purport to be comprehensive in its treatment of non-proprietary modifications of tested constructions. Engineering evaluation or tests are recommended for assessing modifications not specifically covered in this guide.

1.8 The values stated in SI units are to be regarded as standard.

1.9 *This standard is used to determine certain fire-test responses of materials, products, or assemblies to heat and flame under controlled conditions by using results obtained from fire-test-response standards. The results obtained from using this standard do not by themselves constitute measures of fire hazard or fire risk.*

1.10 *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.*

## 2. Referenced Documents

2.1 *ASTM Standards:*[2]

C168 Terminology Relating to Thermal Insulation
C553 Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications
C612 Specification for Mineral Fiber Block and Board Thermal Insulation
E119 Test Methods for Fire Tests of Building Construction and Materials
E176 Terminology of Fire Standards
E631 Terminology of Building Constructions
E1264 Classification for Acoustical Ceiling Products
E1513 Practice for Application of Sprayed Fire-Resistive Materials (SFRMs)

## 3. Terminology

3.1 *Definitions:*

3.1.1 For definitions used in this guide, refer to Terminologies E176, C168, E631, and Test Method E119.

3.1.2 *mineral fiber insulation, n*—insulation composed principally of fibers manufactured from rock, slag, or glass processed from molten state into fibrous form to comprise flexible batts or blankets, rigid or semi-rigid blocks and boards, or loose fill insulations, with or without binder.

3.1.2.1 *Discussion*—Mineral fiber blanket thermal insulations and mineral fiber block and board thermal insulations are

[1] This standard guide is under the jurisdiction of ASTM Committee E05 on Fire Standards and is the direct responsibility of Subcommittee E05.11 on Fire Resistance.

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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.

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