



Examination Standard for ASTM E119, ASTM E1529, EN 1364 and EN 1365 Rated Assemblies

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Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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1 INTRODUCTION

1.1 Purpose

- 1.1.1 This standard states testing and certification requirements for ASTM E119 and ASTM E1529 structural members and fire resistance rated assemblies and for EN 1364 and EN 1365 fire resistance rated elements.
- 1.1.2 Testing and certification criteria may include performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2 Scope

- 1.2.1 This standard applies to assemblies of masonry units, homogeneous and composite assemblies of structural materials for buildings, including load bearing and other walls and partitions, columns, girders, beams, slabs and composite slab and beam assemblies for floors and roofs. This standard also applies to other assemblies and structural units that constitute permanent integral parts of a finished building. Testing provides a comparative measure of the fire-test-response for building elements under these fire exposure conditions.

1.3 Basis for Requirements

- 1.3.1 The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, trade associations, jurisdictions and/or loss control specialists was also considered.
- 1.3.2 The requirements of this standard reflect tests and practices used in ASTM E119 *Standard Test Methods for Fire Tests of Building Construction and Materials*; ASTM E1529 *Standard Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies*; EN 1364 *Fire resistance tests for non-loadbearing elements* and EN 1365 *Fire resistance tests for loadbearing elements* to examine characteristics of rated assemblies for the purpose of obtaining certification. Rated assemblies having characteristics not anticipated by this standard may be certified if performance equal, or superior, to that required by this standard is demonstrated.

1.4 Basis for Certification

Certification is based upon satisfactory evaluation of the product and the manufacturer in the following major areas:

- 1.4.1 Examination and tests on production samples shall be performed to evaluate
 - the suitability of the product;
 - the performance of the product as specified by the manufacturer and required for certification;
 - the durability and reliability of the product.
- 1.4.2 An examination of the manufacturing facilities and audit of quality control procedures may be conducted to evaluate the manufacturer's ability to consistently produce the product, which is examined and tested, and the marking procedures used to identify the product. Subsequent surveillance may be required by the certification agency in accordance with the certification scheme to ensure ongoing compliance.

1.5 Basis for Continued Certification

The basis for continual certification may include the following based upon the certification scheme and requirements of the certification agency:

- production or availability of the product as currently certified;
- the continued use of acceptable quality assurance procedures;
- satisfactory field experience;
- compliance with the terms stipulated by the certification;
- satisfactory re-examination of production samples for continued conformity to requirements; and
- satisfactory surveillance audits conducted as part of the certification agency's product surveillance program.

1.6 Effective Date

The effective date of this examination standard mandates that all products tested for certification after the effective date shall satisfy the requirements of this standard.

The effective date of this standard is eighteen (18) months after the publication date of the standard for compliance with all requirements.

1.7 System of Units

Units of measurement used in this Standard are United States (U.S.) customary units. These are followed by their arithmetic equivalents in International System (SI) units, enclosed in parentheses. The first value stated shall be regarded as the requirement. The converted equivalent value may be approximate. Conversion of U.S. customary units is in accordance with ANSI/IEEE/ASTM SI 10. In the case of EN 1364 and EN 1365, International (Metric) System (SI) units shall be used.

1.8 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the cited edition applies.

American National Standards Institute, 1899 L Street, NW, Washington, DC 20036

- ANSI/IEEE/ASTM SI 10, *American National Standard for Metric Practice*

ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428

- ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*
- ASTM E1529, *Standard Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies*
- ASTM E2226, *Standard Practice for Application of Hose Stream*

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels, Belgium

- EN 1363, *Fire resistance tests - general requirements*