



Standard Test Method for Measuring Relative Movement Capabilities of Through- Penetration Firestop Systems¹

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1. Scope

1.1 This test method covers testing procedures for through-penetration firestop systems. This test method is intended for the following uses:

NOTE 1—Refer to Test Method E814 for definition of “through-penetration firestop system.”

1.1.1 To determine relative movement capability in two separate and distinct planes of movement for different types of through-penetration firestop systems,

1.1.2 To standardize a comparison of movement capability by establishing standardized test conditions, in order to allow the type of through-penetration firestop system’s movement capabilities to be examined,

1.1.3 To provide the user with information on amplitudes of relative movement between the penetrating items and the *substrate* (concrete-based or gypsum-based).

NOTE 2—Amplitude is the measure of change over a single cycle.

1.2 This test method is intended to be used only as part of a specification or acceptance criteria due to the limited movements tested, and limited number of variables examined.

1.3 This test method uses standardized configurations for the test specimen. Test results will not be representative of all possible through-penetration firestop systems.

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 *The text of this standard references notes, comments, and footnotes which provide explanatory material. These notes, comments, and footnotes (excluding those in tables and figures) shall not be considered requirements of this standard.*

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 appro-*

priate safety and health practices and determine the applicability of regulatory limitations prior to use. Some specific hazards statements are given in Section 7 on Safety Hazards.

2. Referenced Documents

2.1 ASTM Standards:²

E119 Test Methods for Fire Tests of Building Construction and Materials

E176 Terminology of Fire Standards

E631 Terminology of Building Constructions

E814 Test Method for Fire Tests of Penetration Firestop Systems

E1399/E1399M Test Method for Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems

2.2 ISO Standards:³

ISO 834 Fire-resistance tests -- Elements of building construction

ISO 10295-1 Fire tests for building elements and components -- Fire testing of service installations -- Part 1: Penetration seals

2.3 UL Standards:⁴

UL 263 Standard for Fire Tests of Building Construction and Materials

ANSI/UL 1479 Standard for Fire Tests of Through-Penetration Firestops

2.4 ULC Standards:⁵

CAN/ULC-S101 Standard Methods of Fire Endurance Tests of Building Construction and Materials

CAN/ULC-S115 Standard Method of Fire Tests of Firestop Systems

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), ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, <http://www.iso.org>.

⁴ Available from Underwriters Laboratories (UL), 2600 N.W. Lake Rd., Camas, WA 98607-8542, <http://www.ul.com>.

⁵ Available from ULC Canada, 7 Underwriters Road, Toronto, Ontario, Canada M1R 3A9, <http://canada.ul.com/ulcstandards>.

¹ This test method is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.21 on Serviceability.

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