



Designation: E 2404 – 05

## Standard Practice for Specimen Preparation and Mounting of Paper or Vinyl Wall Coverings to Assess Surface Burning Characteristics<sup>1</sup>

This standard is issued under the fixed designation E 2404; 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 practice describes procedures for specimen preparation and mounting when testing paper or vinyl (including expanded vinyl) wall coverings materials to assess flame spread and smoke development as surface burning characteristics using Test Method E 84.

1.2 Testing is conducted with Test Method E 84.

1.3 This practice does not provide pass/fail criteria that can be used as a regulatory tool.

1.4 Use the values stated in inch-pound units as the standard, in referee decisions. The values in the SI system of units are given in parentheses, for information only; see IEEE/ASTM SI-10 for further details.

1.5 This fire standard cannot be used to provide quantitative measures.

1.6 Fire testing of products and materials is inherently hazardous, and adequate safeguards for personnel and property shall be employed in conducting these tests. Fire testing involves hazardous materials, operations, and equipment. This standard gives instructions on specimen preparation and mounting, but the fire-test-response method is given in Test Method E 84. See also Section 10.

1.7 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes shall not be considered requirements of the standard.

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

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

C 36 Specification for Gypsum Wallboard

C 1186 Specification for Flat Non-Asbestos Fiber-Cement Sheets

C 1396/C 1396M Specification for Gypsum Board

E 84 Test Method for Surface Burning Characteristics of Building Materials

E 136 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C

E 176 Terminology of Fire Standards

IEEE/ASTM SI-10 International System of Units (SI): The Modern Metric System

2.2 CSA Standard:<sup>3</sup>

CSA O121 Douglas Fir Plywood

2.3 NIST Standard:<sup>4</sup>

Voluntary Product Standard PS 1-95 Construction and Industrial Plywood

### 3. Terminology

3.1 *Definitions*—For definitions of terms used in this practice refer to the terminology contained in Terminology E 176.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *expanded vinyl wall covering, n*—a wall covering consisting of a woven textile backing, an expanded vinyl base coat layer (which is a homogeneous vinyl layer that contains a blowing agent), and a nonexpanded vinyl skin coat.

3.2.2 *paper wall covering, n*—a wall covering with a top layer consisting of paper or an alternative cellulosic-based material, but not consisting of a wood product.

3.2.3 *self-supporting specimen, n*—a specimen that remains in place by its own structural characteristics both before and during the fire test.

3.2.4 *vinyl wall covering, n*—a wall covering produced by applying a poly(vinyl chloride) (PVC, vinyl) based coating, or laminating a preformed vinyl film, onto a woven or nonwoven fabric substrate or paper.

3.2.5 *wall covering, n*—for purposes of this practice, a paper- or vinyl-based product designed to be attached to a wall surface for decorative or acoustical purposes.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee E05 on Fire Standards and is the direct responsibility of Subcommittee E05.22 on Surface Burning.

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<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>3</sup> Available from Canadian Standards Association (CSA), 178 Rexdale Blvd., Toronto, ON Canada M9W1R3.

<sup>4</sup> Available from National Institute of Standards and Technology (NIST), 100 Bureau Dr., Stop 3460, Gaithersburg, MD 20899-3460.