

STANDARD INFORMATION

Standard Number: ASTM E84

Standard Name: Standard Test Method for Surface Burning Characteristics of Building Materials

Standard Edition and Issue Date: ASTM E84 August 1, 2017

Date of Revision: E84-17a November 1, 2017 E84-17, August 1, 2017, E84-15a April 1, 2015,
E84-15 February 15, 2015, E84-13a July 1, 2013

Date of Previous Revision of Standard: ASTM E84-13 May 15, 2013

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **October 31, 2019**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revise requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revise requirements.

Overview of Changes:

E84-17A:

- Annex A4 was revised

E84-17:

- Requirements for metal support pieces added

E84-15A:

- Requirements for standard practices for flexible fibrous glass insulation for metal buildings

E84-15:

- Updated requirements for the Photometer System

E84-13A:

- Requirements for polymeric vinyl, facings and wood veneers

Specific details of new/revise requirements are found in table below.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).



Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



STANDARD INFORMATION

| CLAUSE | VERDICT | COMMENT |
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Additions to existing requirements are underlined and deletions are shown ~~lined out~~ below.

THE FOLLOWING CHANGES REFELCT THECHANGES BETWEEN ASTM E84-13 AND ASTM E84-13A

| | | |
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| 6 | Info | <p>Test Specimens</p> <p>In addition to the above provisions, the standard practices listed below shall be used for specimen preparation and mounting of the relevant test materials. For all other products, guidance on mounting methods is provided in Appendix X1.</p> <p>E2231 for pipe and duct insulation materials.</p> <p>E2404 for paper, <u>polymeric (including vinyl and expanded vinyl) and textile wall and ceiling covering materials, facings or wood veneers intended to be applied on site over a wood substrate.</u></p> <p>E2573 for site-fabricated stretch systems.</p> <p>E2579 for the following wood products: solid board, lumber and timber products (including solid boards, lumber, timber, fingerjoined lumber, glulam, laminate wood, laminated veneer lumber and parallel strand lumber products), panel products (including fibreboard, hardboard, oriented strandboard, waferboard, and plywood panel products), decorative wood products (including fine woodwork, millwork and moulding) and shingles and shakes used as interior wall and ceiling finish and interior trim <u>as well as to laminated products factory-produced with a wood substrate.</u></p> <p>E2599 for reflective insulation, radiant barrier and vinyl stretch ceiling materials for building applications.</p> <p>E2688 for tapes up to and including 8 in. (203.2 mm) in width.</p> <p>E2690 for caulks and sealants intended to be applied up to and including 8 in. (203.2 mm) in width.</p> |
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THE FOLLOWING CHANGES REFELCT THECHANGES BETWEEN ASTM E84-14 AND ASTM E84-15

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| 5 | Info | Apparatus |
| 5.1 | Info | Fire Test Chamber |
| 5.1.9 | Info | Photometer System |



| CLAUSE | VERDICT | COMMENT |
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| 5.1.9.1 | | <p>A photometer system consisting of a lamp <u>white light source</u> and photocell⁸ shall be mounted on a horizontal section of the 16-in. (406-mm) diameter vent pipe at a point where it will be preceded by a straight run of pipe (at least 12 diameters or 16 ft (4.88 m) and not more than 30 diameters or 40 ft (12.19 m) from the vent end of the chamber, and with the light beam directed upward along the vertical axis of the vent pipe. The vent pipe shall be insulated with at least 2 in. (51 mm) of high-temperature mineral composition material, from the vent end of the chamber to the photometer location. The photoelectric cell of which the output is directly proportional to the amount of light received shall be mounted over the light source and connected to a data acquisition device for indicating changes in the attenuation of incident light by the passing smoke, particulate, and other effluent. <u>output of the photoelectric cell is proportional to the smoke, particulate, and other effluent passing between the light source and photocell.</u> The distance between the light source lens and the photocell lens shall be 36 6 4 in. (914 6 102 mm). The cylindrical light beam shall pass through 3-in. (76-mm) diameter openings at the top and bottom of the 16-in. diameter duct, with the resultant light beam centered on the photocell.</p> |
| THE FOLLOWING CHANGES REFLECT THE CHANGES BETWEEN ASTM E84-15 AND ASTM E84-15A | | |
| 6.8 | Info | <p>In addition to the above provisions, the standard practices listed below shall be used for specimen preparation and mounting of the relevant test materials. For all other products, guidance on mounting methods is provided in Appendix X1.</p> <p>E2231 for pipe and duct insulation materials.</p> <p>E2404 for paper, polymeric (including vinyl and expanded vinyl) and textile wall and ceiling covering materials, facings or wood veneers intended to be applied on site over a wood substrate.</p> <p>E2573 for site-fabricated stretch systems.</p> <p>E2579 for the following wood products: solid board, lumber and timber products (including solid boards, lumber, timber, fingerjoined lumber, glulam, laminate wood, laminated veneer lumber and parallel strand lumber products), panel products (including fibreboard, hardboard, oriented strandboard, waferboard, and plywood panel products), decorative wood products (including fine woodwork, millwork and moulding) and shingles and shakes used as interior wall and ceiling finish and interior trim as well as to laminated products factory-produced with a wood substrate.</p> <p>E2599 for reflective insulation, radiant barrier and vinyl stretch ceiling materials for building applications.</p> |



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| | | E2688 for tapes up to and including 8 in. (203.2 mm) in width. |
| | | E2690 for caulks and sealants intended to be applied up to and including 8 in. (203.2 mm) in width. |
| | | <u>E2988 for flexible fibrous glass insulation for metal buildings.</u> |
| THE FOLLOWING CHANGES REFLECT THE CHANGES BETWEEN ASTM E84-16 AND ASTM E84-17 | | |
| 11 | Info | Report |
| 11.1.3 | Info | Details of the method used in placing the specimen in the chamber, to include the following: |
| 11.1.3.3 | | The mounting method employed, <u>including additional information required to be reported by the applicable specimen preparation and mounting practice referenced in 6.8.</u> |
| A3 | Info | FIBER-CEMENT BOARD REQUIREMENTS |
| A3.1 | | Introduction: <u>Use of Fiber-Cement Board:</u> |
| | | <i>New clause added;</i> |
| A3.1.1 | | Fiber cement is used in this test method as a calibration material and, in some instances, as a backing material, |
| | | <i>New clause added;</i> |
| A3.1.2 | | Whenever fiber-cement board is specified in this test method, the material shall meet the requirements in A3.2. |
| | | <i>New clause added;</i> |
| A3.2 | | Fiber-Cement Board Requirements: |
| | | <i>New annex added;</i> |
| A4 | | Metal Support Pieces |
| A4.1 | | The requirements within these annex sections apply unless otherwise specified in this test method or in a standard practice referenced in this test method (see also 1.3). |
| A4.2 | | Metal rods shall be steel rods 1/4-in. (6.3 mm) in diameter and shall span the width of the tunnel. |
| A4.2.1 | | Rods shall be placed at intervals of approximately 24 in. (610 mm) along the length of the test specimen, starting at approximately 2 in. (51 mm) from the fire end of the test specimen. |



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| A4.2.2 | | If 24-in. (610 mm) intervals between rods are too long for a certain test specimen, the interval to be used shall be the longest interval that prevents the test specimen from sagging and interfering with the progression of the flame front. |
| A4.3 | | Metal bars shall be steel bars 3/16 by 2 in. (5 by 51 mm) and shall span the width of the tunnel. Bars shall not be used instead of rods unless they are required to support the test specimen. |
| A4.3.1 | | Bars shall be placed at intervals of approximately 24 in. (610 mm) along the length of the test specimen, starting at approximately 2 in. (51 mm) from the fire end of the test specimen. |
| A4.3.2 | | If 24-in. (610-mm) intervals between bars are too long for a certain test specimen, the interval to be used shall be the longest interval that prevents the test specimen from sagging and interfering with the progression of the flame front. |
| A4.4 | | Whenever netting is specified as a support in this test method, the material shall be 20-gage, 2-in. (51-mm) hexagonal galvanized steel netting conforming to Specification A390. |
| A4.5 | | Use of Metal Supports: |
| A4.5.1 | | Netting and rods or bars are intended for use to support test specimens that will not remain in place during the test. |
| A4.5.2 | | When metal supports are used, test specimens shall be placed on the netting, complying with A4.4, which shall be supported by rods complying with A4.2 or bars complying with A4.3. |
| A5 | | <i>New annex added;</i> Insulation Facings |
| A5.1 | | When insulation facings are tested on their own, they shall be tested supported on galvanized steel netting placed on steel rods in accordance with Annex A4. Netting shall be 20-gage, 2-in. (51-mm) hexagonal galvanized steel netting conforming to Specification A390. |
| A5.2 | | Section A5.1 shall not supersede the requirements of any applicable mounting practices, such as Practices E2231, E2404, or E2988. |
| THE FOLLOWING CHANGES REFELCT THE CHANGES BETWEEN ASTM E84-17 AND ASTM E84-17a | | |
| Annex A4 | Info | USE OF METAL SUPPORT PIECES <i>New clause added;</i> |
| A4.1 | | Metal support pieces shall not be used unless needed to prevent the test specimen from sagging and interfering with the progression of the flame front. |



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| | | <i>New clause added;</i> |
| A4.3 | | The use of rods, bars, netting, rods and netting, or bars and netting, is intended only as support of test specimens that are not self-supporting. |
| | | <i>New clause added;</i> |
| A.4.4 | | Rods or bars shall be used without netting unless that use leads to the test specimen sagging and interfering with the progression of the flame front. |
| | | <i>New clause added;</i> |
| A.4.7 | | Bars—Whenever metal bars are used as support in this test method, they shall be steel bars 3/16 in. by 2 in. (5 mm by 51 mm) and shall span the width of the tunnel. Bars shall not be used instead of rods unless they are required to prevent the test specimen from sagging and interfering with the progression of the flame front. |
| CUSTOMERS PLEASE NOTE: This Table and column “Verdict” can be used in determining how your current or future production is or will be in compliance with new/revised requirements. | | |