



Designation: D 2898 – 07

# Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing<sup>1</sup>

This standard is issued under the fixed designation D 2898; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice covers the durability of a fire-retardant treatment of wood under exposure to accelerated weathering. Two conditioning methods are described, both suitable for application to a test specimen prior to subjecting that specimen to an appropriate fire test.

1.2 This practice is applicable to wood products that have been treated with fire-retardant chemicals by pressure impregnation.

1.3 The test specimens are to be in the form of, or suitable for fabrication into, test specimens, such as those described in Test Methods E 84, E 108, and E 1354 and other standard test methods for evaluating the fire performance of fire-retardant-treated wood products.

1.4 The text of these test methods references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of these test methods.

1.5 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are for information only.

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 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>

D 9 Terminology Relating to Wood and Wood-Based Products

E 84 Test Method for Surface Burning Characteristics of Building Materials

E 108 Test Methods for Fire Tests of Roof Coverings

E 176 Terminology of Fire Standards

E 1354 Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter

## 3. Terminology

3.1 *Definitions*—Definition used in this practice are in accordance with Terminology D 9 and Terminology E 176, unless otherwise indicated.

## 4. Significance and Use

4.1 These test methods provide a choice between two methods of exposing fire-retardant-treated wood products or assemblies to controlled accelerated weathering or conditioning.

4.2 The conditioning simulates effects of leaching, drying, temperature and, in one method, ultraviolet light.

4.3 Method A is the method normally specified for regulatory purposes when testing fire-retardant-treated wood that is intended for exterior applications.

## 5. Apparatus

5.1 The test apparatus shall be capable of subjecting the specimen uniformly to the test conditions described in Section 7.

5.2 No special means of protecting the specimen back and edges are required, but water shall not impinge directly on those surfaces which are not exposed either to the weather in the assembled form, or to fire in the subsequent test. Water spray nozzles shall be provided and arranged so as to distribute water evenly over the exposed specimen surface.

5.3 Heating shall be thermostatically controlled. Forced air movement shall be uniform across the specimen surface, with provisions made for adequate air changes to assure thorough drying.

5.4 In Method B, ultraviolet light shall be distributed as evenly as possible over the specimen surface, using sunlamps<sup>3</sup>

<sup>1</sup> These test methods are under the jurisdiction of ASTM Committee D07 on Wood and are the direct responsibility of Subcommittee D07.07 on Fire Performance of Wood.

Current edition approved April 15, 2007. Published May 2007. Originally approved in 1970. Last previous edition approved in 2004 as D 2898 – 94 (2004).

<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> General Electric Type H275 RUV (275 W) or Osram Ultra-Vitalox (300 W), or equivalent, is suitable.