



Designation: D8484 – 23

Standard Specification for Plastic Lumber Materials and Wood-Plastic Composite Materials Used as Exterior Wall Coverings¹

This standard is issued under the fixed designation D8484; 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 specification is applicable to the use of plastic lumber materials and of wood-plastic composite materials, and no other plastic composite materials, used as exterior wall coverings, as part of an exterior wall assembly.

1.2 This specification is not applicable to the use of plastic lumber materials or of wood-plastic composite materials contained in exterior wall assemblies when not used as part of the exterior wall covering.

1.3 This specification is not applicable to the use of any of the following types of materials:

(a) poly(vinyl chloride) (PVC) siding (see Specification D3679, for standard vinyl siding, or Specification D7793, for insulated vinyl siding),

(b) polypropylene siding (see Specification D7254),

(c) wood (including lumber, plywood, engineered wood, coated wood, or painted wood).

1.4 This specification is not applicable to the use of plastic lumber materials or of wood-plastic composite materials in any application other than the one addressed in 1.1. In particular, this specification is not applicable to the use of plastic lumber materials or of wood-plastic composite materials as exterior deck boards, stair treads, handrails, guards, or soffits.

1.5 The values stated in inch-pound units are to be regarded as standard. Any SI units 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—There is no known ISO equivalent to this standard.

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the*

Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

D570 Test Method for Water Absorption of Plastics

D618 Practice for Conditioning Plastics for Testing

D883 Terminology Relating to Plastics

D3679 Specification for Rigid Poly(Vinyl Chloride) (PVC) Siding

D5206 Test Method for Windload Resistance of Rigid Plastic Siding

D6341 Test Method for Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber Shapes Between –30 and 140°F (–34.4 and 60°C)

D6662 Specification for Polyolefin-Based Plastic Lumber Decking Boards

D7032 Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails

D7254 Specification for Polypropylene (PP) Siding

D7793 Specification for Insulated Vinyl Siding

E84 Test Method for Surface Burning Characteristics of Building Materials

E119 Test Methods for Fire Tests of Building Construction and Materials

E136 Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 °C

E176 Terminology of Fire Standards

2.2 Other Documents:

ASCE/SEI 7-2022 Minimum Design Loads and Associated Criteria for Buildings and Other Structures³

IBC 2024 International Building Code, 2024 Edition (IBC)⁴

¹ This test method is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.20 on Plastic Lumber.

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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 American Society of Civil Engineers (ASCE), 1801 Alexander Bell Dr., Reston, VA 20191, <http://www.asce.org>.

⁴ Available from International Code Council (ICC), 500 New Jersey Ave., NW, 6th Floor, Washington, DC 20001, <http://www.iccsafe.org>.