



Designation: D7032 – 21

Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails¹

This standard is issued under the fixed designation D7032; 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 covers procedures to establish a performance rating for wood-plastic composite and plastic lumber for use as exterior deck boards, stair treads, guards, and handrails. The purpose of this specification is to establish a basis for code recognition of these products or systems in exterior applications.

NOTE 1—While wood-plastic composites contain wood or other cellulosic materials, the presence of wood or other cellulosic materials in plastic lumber is not required by this specification. Due to non-wood materials in wood-plastic composites and plastic lumber the structural, physical, fire, and other attributes may not be similar to those of wood.

NOTE 2—The products addressed in this standard are considered combustible. No fire response characteristic is required in this specification except for flame spread index as determined in accordance with Test Method E84.

1.1.1 The plastic component of wood-plastic composites and plastic lumber covered by this specification shall consist primarily of thermoplastics.

1.2 Deck boards, stair treads, guards, and handrails covered by this specification are permitted to be of any code compliant shape and thickness (solid or non-solid).

1.3 Wood-plastic composites and plastic lumber are produced in a broad range of fiber and/or resin formulations. It is recognized that the performance requirements in this specification are valid for any material or combination of materials used as deck boards, stair treads, guards, or handrails.

1.4 Details of manufacturing processes are beyond the scope of this specification.

1.5 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 This specification is under the jurisdiction of ASTM Committee D07 on Wood and is the direct responsibility of Subcommittee D07.02 on Lumber and Engineered Wood Products.

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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.

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1.8 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.