



Designation: D-6109—97^{€1} 6109 – 03

Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber¹

This standard is issued under the fixed designation D 6109; 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 (€) indicates an editorial change since the last revision or reapproval.

^{€1} NOTE—Editorially corrected 1.1 in April 2002.

1. Scope*

1.1 These test methods cover the determination of flexural properties of plastic lumber with rectangular or square cross-sections. The test specimens are whole “as manufactured” pieces without any altering or machining of surfaces beyond cutting to length. As such, this is a test method for evaluating the properties of plastic lumber as a product and not a material property test method. Flexural strength cannot be determined for those products that do not break or that do not fail in the extreme outer fiber.

1.2 *Test Method A*— designed principally for products in the flat or “plank” position.

1.3 *Test Method B*— designed principally for those materials in the edgewise or “joist” position.

1.4 Plastic lumber is currently made predominately with recycled plastics where the product is non-homogeneous in the cross-section. However, this test method would also be applicable to similar manufactured plastic products made from virgin resins or other plastic composite materials.

1.5 The values stated in inch–pound units are to be regarded as the 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 regulator limitations prior to use.*

NOTE 1—There is no similar or equivalent ISO standard.

2. Referenced Documents

2.1 *ASTM Standards:*

D 198 Methods of Static Tests of Lumber in Structural Sizes²

¹ These test methods are under the jurisdiction of ASTM Committee D-20 on Plastics and are the direct responsibility of Subcommittee D20.20 on Plastic Products (Section D20.20.01).

Current edition approved ~~July~~ March 10, ~~1997~~, 2003. Published ~~February~~ April 2003. Originally approved in 1997. Last previous edition approved in 1997 as D 6109 - 97.

*A Summary of Changes section appears at the end of this standard.