



Designation: D6199 – 18a (Reapproved 2024)^{ε1}

Standard Practice for Quality of Wood Members of Containers and Pallets¹

This standard is issued under the fixed designation D6199; 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.

^{ε1} NOTE—Editorially removed year from MHIA/ANSI standard in 2.2 in October 2024.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope

1.1 This practice covers the quality requirements for three classes of hardwood and soft-wood members, excluding man-made or fabricated wood composites, used in the construction of boxes, crates, pallets, and blocking and bracing.

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

1.3 *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.*

1.4 *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

D9 Terminology Relating to Wood and Wood-Based Products

D996 Terminology of Packaging and Distribution Environments

D4442 Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials

D4444 Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters

D6253 Practice for Treatment and/or Marking of Wood Packaging Materials

2.2 *MHIA/ANSI Standard:*³

MHIA/ANSI MH1 Pallets, Slip Sheets, and Other Bases for Unit Loads

2.3 *IPPC Standard:*⁴

ISPM 15 Regulation of Wood Packaging Material in International Trade

3. Terminology

3.1 *Definitions*—General definitions for packaging and distribution environments are found in Terminology D996. General definitions for wood are found in Terminology D9.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *brash, n*—decay characteristic, which is the breaking of the grain without splintering.

3.2.2 *crate frame members, n*—those parts which form the fundamental structure upon which the strength and rigidity of crates depend.

3.2.3 *diagonals, n*—frame members placed at angles of nearly 45° to other frame members, to ensure the rigidity of the crate.

3.2.4 *linderman joint, n*—glued dove-tailed joint between two or more pieces of wood.

3.2.5 *longitudinal frame members, n*—horizontal members of the side, end, and top panels of crates.

3.2.6 *punk, n*—decay characteristic, which is very dry, powdery, and crumbly wood.

3.2.7 *siftproofness, n*—the prohibition of the migration of material, of any size, from the interior to the exterior of a container.

3.2.8 *struts, n*—vertical frame members placed between the upper and lower frame members of the side and end panels of a crate that serve as columns for supporting vertical stacking loads.

³ Available from Material Handling Industry MH1 Secretariat, 8720 Red Oak Blvd., Suite 201, Charlotte, NC 28217, <http://www.mhiastore.org>.

⁴ International Plant Protection Convention Secretariat (IPPC), Viale delle Terme di Caracalla 00153 Rome, Italy, <https://www.ippc.int/en/>.

¹ This practice is under the jurisdiction of ASTM Committee D10 on Packaging and is the direct responsibility of Subcommittee D10.12 on Shipping Containers, Crates, Pallets, Skids and Related Structures.

Current edition approved Oct. 1, 2024. Published October 2024. Originally approved in 1997. Last previous edition approved in 2018 as D6199 – 18a. DOI: 10.1520/D6199-18AR24E01.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.