



Standard Specification for Heavy Duty Sheathed Wood Crates¹

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

1. Scope

1.1 This specification covers requirements for two types and two classes of sheathed crates each of which may have two base styles. The crates are designed for net loads not exceeding 30 000 pounds lb [13 607 kg] and to withstand the most severe overseas shipping and storage conditions.

1.2 The crates described by this specification are intended to protect items from atmospheric elements during shipment and storage. They are designed to withstand the rough handling of logistic operations including stacking and outside storage for a prolonged period.

1.3 Class 1 and 2 crates may be used interchangeably as desired. However, the Class 2 crate should be used when weight is a prime consideration, as the lack of diagonals and thinner plywood sheathing results in a lighter crate.

1.4 Demountable crates, Type II, should be used whenever it is expected that the contained item will require reshipping to another destination.

1.5 Sill bases, Style B, are intended for items that project below their mounting points, such as disassembled vehicles.

1.6 If the use of other construction method or techniques is acceptable and permitted (see 5.10), the resulting packaging systems shall be of equal or better performance than would result from the use of these specified materials and procedures. The appropriate distribution cycle, specified in Practice D4169 can be used to develop comparative procedures and criteria.

1.7 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard. See IEEE/ASTM SI 10 for conversion of units.

1.8 *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:²

D996 Terminology of Packaging and Distribution Environments

D3953 Specification for Strapping, Flat Steel and Seals

D4169 Practice for Performance Testing of Shipping Containers and Systems

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

D4675 Guide for Selection and Use of Flat Strapping Materials¹

D6199 Practice for Quality of Wood Members of Containers and Pallets

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

F1667 Specification for Driven Fasteners: Nails, Spikes, and Staples

IEEE/ASTM SI 10 Standard for Use of International System of Units (SI): The Modern Metric System

2.2 National Institute of Standards and Technology (NIST) Standards:

PS 1 Voluntary Product Standard, Structural Plywood³

PS 20 American Softwood Lumber Standard⁴

2.3 Hardwood Plywood and Veneer Association Standard:⁵

ANSI/HPVA HP-1-2004 American National Standard for Hardwood and Decorative Plywood

¹ This specification 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.

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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 APA, The Engineered Wood Association, 7011 South 19th St., Tacoma, WA 98466–5399, <http://www.apawood.org>.

⁴ Available from American Lumber Standards Committee, Inc., (ALSC), P.O. Box 210, Germantown, MD 20875–0210, <http://www.alsc.org>.

⁵ Available from Hardwood Plywood and Veneer Association (HPVA), P.O. Box 2789, Reston, VA 22090–0789, <http://www.hpva.org>.