



Designation: D5168 – 12 (Reapproved 2017)

Standard Practice for Fabrication and Closure of Triple-Wall Corrugated Fiberboard Containers¹

This standard is issued under the fixed designation D5168; 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.

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

1. Scope

1.1 This practice covers the fabrication and closure of new triple-wall corrugated fiberboard containers.

1.2 This practice indicates the factors and components that must be controlled in the manufacture of triple-wall fiberboard containers.

1.3 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.

1.4 *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.*

1.5 *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

- D996** Terminology of Packaging and Distribution Environments
- D3950** Specification for Strapping, Nonmetallic (and Joining Methods)
- D3951** Practice for Commercial Packaging
- D3953** Specification for Strapping, Flat Steel and Seals

D4675 Guide for Selection and Use of Flat Strapping Materials¹

D4727/D4727M Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes

D5330/D5330M Specification for Pressure-Sensitive Tape for Packaging, Filament-Reinforced

D5486/D5486M Specification for Pressure-Sensitive Tape for Packaging, Box Closure, and Sealing

SI 10 American National Standard for Use of the International System of Units (SI): The Modern Metric System

2.2 TAPPI Standards:³

T 411 Test Method for Thickness of Paper and Paperboard

T 803 Puncture and Stiffness Test of Container Board

T 810 Bursting Strength of Corrugated and Solid Fiberboard

T 811 Edgewise Compression Strength of Corrugated Fiberboard (Short Column Test)

T 812 Ply Separation of Solid and Corrugated Fiberboard (Wet)

2.3 Code of Federal Regulations:⁴

CFR Parts 107-180 Title 49, Hazardous Materials Regulations

2.4 Other Standards:

National Motor Freight Classification⁵

Uniform Freight Classification⁶

2.5 Use of Other Specifications:

2.5.1 Nothing in this practice shall be construed to prohibit the use of containers of special design or of fiberboard containers identified by package number in the current Uniform Freight Classification and National Motor Freight Classification when in the experience and judgment of the purchaser, the nature of the articles or material to be shipped justifies such containers.

¹ This practice is under the jurisdiction of ASTM Committee **D10** on Packaging and is the direct responsibility of Subcommittee **D10.27** on Fiberboard Shipping Containers, Containerboard and Related Structures and Materials.

Current edition approved April 1, 2017. Published June 2017. Originally approved in 1991. Last previous edition approved in 2012 as D5168 – 12. DOI: 10.1520/D5168-12R17.

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 Technical Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Norcross, GA 30092, <http://www.tappi.org>.

⁴ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

⁵ Available from National Motor Freight Traffic Association (NMFTA), 1001 N. Fairfax St., Alexandria, VA 22314, <http://www.nmfta.org>.

⁶ Available from Short Line and Regional Railroad Association, 50 F Street, N.W., Suite 7020, Washington, DC 20001-1536.