



Designation: D2658 – 18 (Reapproved 2023)

Standard Test Method for Determining Dimensions of Fiberboard Boxes¹

This standard is issued under the fixed designation D2658; 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 test method covers the determination of the interior and exterior dimensions of regular slotted or special slotted styles of single-wall corrugated, double-wall corrugated and solid fiberboard boxes.

1.2 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.

1.3 *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

- D685 Practice for Conditioning Paper and Paper Products for Testing
- D996 Terminology of Packaging and Distribution Environments
- D4332 Practice for Conditioning Containers, Packages, or Packaging Components for Testing
- D4727/D4727M Specification for Corrugated and Solid Fiberboard Sheet Stock (Container Grade) and Cut Shapes
- D5118/D5118M Practice for Fabrication of Fiberboard Shipping Boxes

¹ This test method 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 March 15, 2023. Published March 2023. Originally approved in 1967. Last previous edition approved in 2018 as D2658 – 2018. DOI: 10.1520/D2658-18R23.

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.

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

2.2 ANSI Standard:³

B46.1 Surface Texture Surface Roughness, Waviness and Lay

2.3 TAPPI Standards:⁴

T400 Sampling and Accepting a Single Lot of Paper, Paperboard, Containerboard, or Related Product

T827 Box Blank Dimensioning, Test Method

2.4 FBA/PPMI:⁵

Tolerances for Corrugated Regular Slotted Containers (RSCs) Voluntary Industry Standard (See also ANSI Technical Report PMMI B155 TR2.1³)

2.5 FBA/FEFCO:⁶

Common Footprint Specifications

2.6 GMA/ISO:⁷

Standard Pallet Size (most common)

3. Terminology

3.1 *Definitions*—General terms in this test method are defined in Terminology D996.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *blank, n*—flat sheet of containerboard or combined board that has been cut, scored and slotted as preliminary operations to making a box.

3.2.2 *caliper, n*—containerboard or combined board thickness.

3.2.3 *depth, n*—the distance between the innermost surfaces of the box measured perpendicular to the length and width.

3.2.4 *exterior dimensions, n*—the measurement of the outer most surfaces of the length, width and depth of a box.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ Available from Technological Association of the Pulp and Paper Industry (TAPPI), 15 Technology Parkway South, Suite 115, Peachtree Corners, GA 30092, <http://www.tappi.org>.

⁵ Available from the Fibre Box Association Suite 985, 500 Park Blvd, Itasca, IL 60143, or PPMI 11911 Freedom Dr #600, Reston, VA 20190.

⁶ Available from the FBA and FEFCO (European Federation of Corrugated Manufacturers) Avenue Louise 250, B-1050 Brussels, Belgium.

⁷ Available from ISO Central Secretariat, Chemin de Blandonnet 8, CP 401-1214 Vernier, Geneva, Switzerland (historic document from Grocery Manufacturer's Association).