



Designation: D5998 – 24

Standard Specification for Molded Polyethylene Shipping and Storage Drums¹

This standard is issued under the fixed designation D5998; 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 specification covers self-supporting, molded polyethylene, tight head drums and open head drums designed for surface and air shipment, ranging in size from 5 gal nominal (19 L) to and including 119 gal nominal (450 L).

1.2 Virgin or recycled polyethylene plastics² or combinations thereof can be used provided the finished product meets the requirements of this specification.

NOTE 1—There is no known direct ISO equivalent to this standard. Similar standards are ISO 20848-1, ISO 20848-2, and ISO 20848-3.

1.3 The values stated in inch-pound units are to be regarded as the 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 Drums intended to contain hazardous goods (materials) shall be in accordance with and tested to United States Department of Transportation Code of Federal Regulations (CFR) Title 49, Parts (100-199).

1.5 Additives for the resin used and design of the drums are left to the discretion of the supplier, within the allowable limits of regulatory and performance requirements.

1.6 The Hazardous Material (Dangerous Goods) Regulations requires the shipper, or offeror for shipment, to be responsible to determine the suitability of the packaging for its intended purpose.

1.7 *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.*

1.8 *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 Recom-*

mendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:³

- D883 Terminology Relating to Plastics
- D1972 Practice for Generic Marking of Plastic Products (Withdrawn 2014)⁴
- D3951 Practice for Commercial Packaging
- D4504 Specification for Molded Polyethylene Open-Head-Pails for Industrial Shipping of Nonhazardous Goods
- D4919 Guide for Testing of Hazardous Materials (Dangerous Goods) Packagings
- D7209 Guide for Waste Reduction, Resource Recovery, and Use of Recycled Polymeric Materials and Products (Withdrawn 2015)⁴

2.2 ANSI Standards:⁵

- ANSI Z1.4 Sampling Procedures and Tables for Inspection by Attributes

2.3 Federal Regulations:⁶

- 21 CFR 121 Federal Food, Drug, and Cosmetic Act and Regulations Promulgated Thereunder
- 21 CFR 177 Indirect Food Additives: Polymers
- 21 CFR 178 Indirect Food Additives: Adjuvants, Production Aids and Sanitizers
- 49 CFR United States Department of Transportation Code of Federal Regulations, Transportation, Parts 100-199

2.4 National Sanitation Foundation International:⁷

- NSF Standard No. 2 Food Service Equipment
- NSF Standard No. 51 Plastics Materials and Components Used in Food Service Equipment

³ 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.

⁴ The last approved version of this historical standard is referenced on www.astm.org.

⁵ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁶ 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>.

⁷ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140, <http://www.nsf.org>.

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.15 on Thermoplastic Materials.

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² As defined in Guide D7209.

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