



Designation: D 4801 – 95

AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Polyethylene Sheeting in Thickness of 0.25 mm (0.010 in.) and Greater¹

This standard is issued under the fixed designation D 4801; 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 Department of Defense.

1. Scope

1.1 This specification covers requirements for extruded- and compression-molded sheeting made from low-, medium- and high-density polyethylenes and copolymers in thickness of 0.25 mm (0.010 in.) and greater. Sheeting conforming to this specification is intended for use in the thinner gages principally for chemical tank linings, spacers in electrical equipment, and for thermoforming into such items as trays, pallets, and shipping containers. The thicker gages are used principally as machine-shop stock.

1.2 Polyethylene materials, being thermoplastics, are reprocessible and recyclable (see Guide D 5033). This specification allows for the use of those polyethylene plastic materials, provided that any specific requirements as governed by the producer and end user are met.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 The following precautionary caveat pertains only to the test methods portion, Section 11, of this specification: *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.*

NOTE 1—There is no similar or equivalent ISO standard.

2. Referenced Documents

2.1 ASTM Standards:

D 374 Test Methods for Thickness of Solid Electrical Insulation²

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing³

D 638 Test Method for Tensile Properties of Plastics³

¹ This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.19 on Film and Sheeting.

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Changes in this edition were made in the scope and referenced documents, and a keywords section was added.

² Annual Book of ASTM Standards, Vol 10.01.

³ Annual Book of ASTM Standards, Vol 08.01.

D 883 Terminology Relating to Plastics³

D 1204 Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature³

D 1248 Specification for Polyethylene Plastics Molding and Extrusion Materials³

D 1898 Practice for Sampling of Plastics³

D 2103 Specification for Polyethylene Film and Sheeting³

D 3892 Practice for Packaging/Packing of Plastics⁴

D 5033 Guide for the Development of Standards Relating to the Proper Use of Recycled Plastics⁵

2.2 Military Standard:⁶

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes

2.3 Federal Standard:⁶

Fed. Std. No. 406, Plastics: Methods of Testing (Method 6051, Warpage)

2.4 Federal Specification:⁶

L-P-390C-Plastic, Molding and Extrusion Material, Polyethylene and Copolymers (Low, Medium, and High Density)

3. Terminology

3.1 **Definitions:** Unless otherwise indicated, the terminology used in this specification is in accordance with Terminology D 883.

4. Classification

4.1 The polyethylene sheeting in accordance with this specification is classified by special types as follows:

4.1.1 *Type I*—General purpose, natural and colors.

4.1.2 *Type II*—Dielectric, natural and colors.

4.1.3 *Type III*—Weather-resistant, black.

5. Ordering Information

5.1 Users should select the preferred options permitted herein and include the following information in the purchase contract.

⁴ Annual Book of ASTM Standards, Vol 08.02.

⁵ Annual Book of ASTM Standards, Vol 08.03.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.