



Designation: ~~D5047-05~~ Designation: D 5047 - 09

Standard Specification for Polyethylene Terephthalate Film and Sheeting¹

This standard is issued under the fixed designation D 5047; 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~~ 1.1 This specification covers requirements for biaxially oriented polyethylene terephthalate film and sheeting in thicknesses from 1.5 μm ~~{0.06 mil}~~ (0.06 mil) to 35.5355 μm ~~{14.0 mil}~~ (14.0 mil). For this specification, polyethylene terephthalate film and sheeting shall be defined as the material derived from terephthalic acid and ethylene glycol and shall consist of at least 90 % polyethylene terephthalate homopolymer. This specification does not apply to coated, coextruded, tinted, pigmented, or metallized film or sheeting.

1.2 Polyethylene terephthalate materials, being thermoplastic, are reprocessible and recyclable.² This specification allows for the use of those polyethylene terephthalate 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 ~~brackets~~ parentheses are for information only.

~~NOTE 1—There is no similar or equivalent ISO standard.~~ 1—There is no known ISO equivalent to this specification.

~~NOTE 2—Film is defined as sheeting having a thickness of ≤ 250 microns (0.010 in.).~~

2. Referenced Documents

2.1 ASTM Standards:³

D 149 Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

D 150 Test Methods for ~~A-CAC~~ Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical ~~Insulating Materials~~ Insulation

D 257 Test Methods for ~~D-EDC~~ Resistance or Conductance of Insulating Materials

~~D774~~ 774/D 774M Test Method for Bursting Strength of Paper

D 882 Test ~~Methods~~ Method for Tensile Properties of Thin Plastic Sheeting

D 883 Terminology Relating to Plastics

D 1004 Test Method for ~~Initial~~ Tear Resistance (Graves Tear) of Plastic Film and Sheeting

D 1505 Test Method for Density of Plastics by the Density-Gradient Technique

D 1894 Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting ~~D1898~~ Practice for Sampling of Plastics

D 1922 Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method

D 2176 Test Method for Folding Endurance of Paper by the M.I.T. Tester

D 2275 Test Method for Voltage Endurance of Solid Electrical Insulating Materials Subjected to Partial Discharges (Corona) on the Surface

D 2305 Test Methods for ~~Testing~~ Polymeric Films Used for Electrical Insulation

D 3417 ~~Test Method for Heats of Fusion and Crystallization of Polymers by Thermal Analysis~~ Test Method for Enthalpies of Fusion and Crystallization of Polymers by Differential Scanning Calorimetry (DSC)

D 3892 Practice for Packaging/Packing of Plastics

D 3985 Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor

~~D5033~~ Guide for the Development of Standards Relating to the Proper Use of Recycled Plastics

D 5947 Test Methods for Physical Dimensions of Solid Plastics Specimens

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.19 on Film and Sheeting. Current edition approved April/Sept. 1, 2005-2009. Published June 2005-September 2009. Originally approved in 1990. Last previous edition approved in 2003/2005 as ~~D5047-95(03)-D 5047 - 05.~~

² See Guide D5033

³ See Guide D 7209 for information and definitions related to recycled plastics.

³ 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.

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