



Designation: D3595 – 14 (Reapproved 2019)<sup>ε1</sup>

# Standard Specification for Polychlorotrifluoroethylene (PCTFE) Extruded Plastic Sheet and Film<sup>1</sup>

This standard is issued under the fixed designation D3595; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

<sup>ε1</sup> NOTE—Editorially corrected Footnote 4 in June 2019.

## 1. Scope

1.1 This specification covers extruded sheet and film in thicknesses from 0.015 to 0.25 mm (0.0006 to 0.01 in.).

1.2 The values stated in SI units shall be regarded as the standard.

1.3 The following precautionary statement pertains only to the test methods portion, Section 9 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—There is no known ISO equivalent to this standard.

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:*<sup>2</sup>

- D618 Practice for Conditioning Plastics for Testing
- D882 Test Method for Tensile Properties of Thin Plastic Sheeting
- D883 Terminology Relating to Plastics
- D1204 Test Method for Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature

<sup>1</sup> 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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<sup>2</sup> 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.

- D1430 Classification System for Polychlorotrifluoroethylene (PCTFE) Plastics
- D1600 Terminology for Abbreviated Terms Relating to Plastics
- D3892 Practice for Packaging/Packing of Plastics
- F1249 Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor
- IEEE/ASTM SI 10 Standard for Use of the International System of Units (SI): The Modern Metric System<sup>3</sup>

## 3. Terminology

3.1 Definitions of terms used in this specification shall be in accordance with Terminology D883.

3.2 *lot, n*—one production run or a uniform blend of two or more production runs.

3.3 Abbreviations are in accordance with Terminology D1600. PCTFE is the abbreviation for polychlorotrifluoroethylene.

## 4. Classification

4.1 This specification covers four types of polychlorotrifluoroethylene sheet and film:<sup>4</sup>

4.1.1 *Type I*—Transparent film, with high and low moisture vapor transmission rate.

4.1.2 *Type II*—Dimensionally stable transparent sheet and film with low moisture vapor transmission rate.

4.1.3 *Type III*—Dimensionally stable transparent film with very low moisture vapor transmission rate.

4.1.4 *Type IV*—Low crystalline transparent film with high ductility and extremely low moisture vapor transmission.

4.2 A one-line system may be used to specify materials covered by this specification. The system uses predefined cells to refer to specific aspects of this specification, as illustrated below.

<sup>3</sup> Available from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

<sup>4</sup> The PCTFE formulations used to make extruded sheet and film do not correspond to the PCTFE materials in powders and pellets covered by Specification D1430.