



Designation: D7471 – 19 (Reapproved 2024)

Standard Specification for CPT-Fluoropolymer Molding and Extrusion Materials¹

This standard is issued under the fixed designation D7471; 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 copolymers of chlorotrifluoroethylene, perfluoroalkoxy, and tetrafluoroethylene and are suitable for extrusion, compression, and injection molding.

1.2 This specification does not cover blended materials and does not cover recycled materials.

1.3 The values stated in SI units as detailed in **IEEE/ASTM SI-10** are to be regarded as the standard. The values given in parentheses are for information only.

1.4 The following safety hazards caveat pertains only to the test method 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—Although this classification system and ISO 20568-1 and ISO 20568-2 differ in approach or detail, data obtained using either are technically equivalent.

1.5 *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

D618 Practice for Conditioning Plastics for Testing

D638 Test Method for Tensile Properties of Plastics

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 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.

D792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement

D883 Terminology Relating to Plastics

D1238 Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer

D1600 Terminology for Abbreviated Terms Relating to Plastics (Withdrawn 2024)³

D3418 Test Method for Transition Temperatures and Enthalpies of Fusion and Crystallization of Polymers by Differential Scanning Calorimetry

D3892 Practice for Packaging/Packing of Plastics

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

IEEE/ASTM SI-10 Use of the International System of Units (SI): The Modern Metric System

2.2 *ISO Standards:*⁴

ISO 20568-1 Plastics—Fluoropolymer Dispersion and Moulding and Extrusion Materials—Part 1: Designation and Basis for Specification

ISO 20568-2 Plastics—Fluoropolymer Dispersion and Moulding and Extrusion Materials—Part 2: Preparation of Test Specimens and Determination of Properties

3. Terminology

3.1 *General*—The terminology given in Terminology **D883** is applicable to this specification.

3.2 *Definitions:*

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

3.3 *General*—The abbreviated terms given in Terminology **D1600** are applicable to this specification.

4. Classification

4.1 This specification covers one type of fluoropolymer supplied in pellet form classified according to their melting point. The resins of each type are divided into four grades according to their melt flow rate.

³ The last approved version of this historical standard is referenced on www.astm.org.

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