



Designation: D7471 – 09

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 and health practices and determine the applicability of regulatory limitations prior to use.*

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

2. Referenced Documents

2.1 ASTM Standards:²

- [D618 Practice for Conditioning Plastics for Testing](#)
- [D638 Test Method for Tensile Properties of Plastics](#)
- [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](#)
- [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](#)

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.

Current edition approved June 1, 2009. Published June 2009. DOI: 10.1520/D7471-09.

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.

[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](#)

3. Terminology

3.1 *General*—The terminology given in Terminology [D883](#) is applicable to this specification.

3.2 *Definitions*:

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

3.4 *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.

4.2 An one-line system shall be used to specify materials covered by this specification. The system uses predefined cells to refer to specific aspects of this specification, as illustrated as follows:

Specification
Standard Number : Type : Grade : Special
Block : : : Notes
: : : :

Example: Specification D7471 - 09, I2

For this example, the line callout shall be, Specification D7471 – 09, I2 and shall specify a fluoropolymer that has all of the properties listed for that type and grade in the appropriate specified properties, or tables, or both, in the specification identified. A comma is used as the separator between the standard number and the type. Separators are not needed between the group and grade.³

5. General Requirements

5.1 The material shall be of uniform composition and so prepared as to conform to the requirements of this specification.

³ See the ASTM Form and Style Manual, available from ASTM Headquarters.