



Standard Classification System for Phenolic Compounds (PF)¹

This standard is issued under the fixed designation D 4617; 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 classification system covers phenolic compounds suitable for compression, transfer, or injection molding, or a combination thereof.

1.2 This classification system is intended to be a means of calling out plastic materials used in the fabrication of end items or parts. It is not intended for the selection of materials. Material selection should be made by those having expertise in the plastics field after careful consideration of the design and the performance required of the part, the environment to which it will be exposed, the fabrication process to be employed, the inherent properties of the material other than those covered by this classification system, and the economics.

1.3 The properties included in this classification system are those required to identify the compositions covered. There may be other requirements necessary to identify particular characteristics important to specialized applications. These will be agreed upon between the user and the supplier, by using the suffixes specified in Section 5.

1.4 The values stated in SI units are to be regarded as the standard.

1.5 The following precautionary caveat pertains only to the test method portion, Section 13 of this classification system: *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—ISO 800-1992(E) is similar but not equivalent to this classification system. Product classification and characterization are not the same.

2. Referenced Documents

2.1 ASTM Standards:

- D 256 Test Methods for Impact Resistance of Plastics and Electrical Insulating Materials²
- D 570 Test Method for Water Absorption of Plastics²

¹ This classification system is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.16 on Thermosetting Materials.

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² Annual Book of ASTM Standards, Vol 08.01.

- D 618 Practice for Conditioning Plastics for Testing²
- D 638 Test Method for Tensile Properties of Plastics²
- D 648 Test Method for Deflection Temperature of Plastics Under Flexural Load²
- D 695 Test Method for Compressive Properties of Rigid Plastics²
- D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials²
- D 792 Test Methods for Specific Gravity (Relative Density) and Density of Plastics by Displacement²
- D 796 Practice for Compression Molding Test Specimens of Phenolic Molding Compounds²
- D 883 Terminology Relating to Plastics²
- D 1600 Terminology for Abbreviated Terms Relating to Plastics²
- D 1896 Practice for Transfer Molding Specimens of Thermosetting Compounds²
- D 3419 Practice for In-Line Screw-Injection Molding of Test Specimens from Thermosetting Compounds³
- D 3892 Practice for Packaging/Packing of Plastics³
- D 4000 Classification System for Specifying Plastic Materials³
- E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specification⁴
- 2.2 ISO Standard:⁵
 - ISO 8000-1992(E)

3. Terminology

3.1 *Definitions*—For definitions of technical terms pertaining to plastics used in this classification system see Terminology D 883, or D 1600, or both.

4. Classification

4.1 Phenolic compounds are classified into groups according to their application. These groups are subdivided into classes and grades as shown in Table PF.

NOTE 2—An example of this classification system is as follows: The designation PF 111 indicates:

³ Annual Book of ASTM Standards, Vol 08.02.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

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