



Designation: F 99 – 76 (Reapproved 2001)

Standard Practice for Preparation of Flexible Barrier Material Specifications¹

This standard is issued under the fixed designation F 99; 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 practice covers the preparation of specifications for flexible barrier materials.

1.2 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D 1898 Practice for Sampling of Plastics³

E 122 Practice for Calculating Sample Size to Estimate, With a Specified Tolerable Error, the Average for a Characteristic of a Lot or Process

F 17 Terminology Relating to Flexible Barrier Materials

2.2 *Military Standard:*

MIL-STD-105D Sampling Procedures and Tables for Inspection by Attributes⁴

3. Terminology

3.1 *specification*—a precise statement of a set of requirements to be satisfied by a material, product, system, or service, indicating, whenever appropriate, the procedure by means of which it may be determined whether the requirements given are satisfied. As far as practicable, it is desirable that the requirements be expressed numerically in terms of appropriate units together with their limits.

3.1.1 There are five important requisites: accuracy and precision, workability, suitability, flexibility, and acceptability.

3.2 *barrier*—see Terminology **F 17**.

3.3 *flexible*—see Terminology **F 17**.

4. General Requirements

4.1 *Type of Specification*—The two conditions that may exist when preparation of a specification for a flexible barrier material is initiated are: (1) an ASTM specification for the material exists, but is not oriented toward flexible barrier use (that is, polyethylene film prepared as a plastic material specification) and (2) no published ASTM specification for the material exists.

4.2 *Specification Coverage*—If an ASTM specification for the material exists, the specification prepared by Committee F-2 will reference the specification and be a delineation of the requirements therein with the addition of those requirements covering use as a barrier material. If there is no published ASTM specification for the material, then the specification prepared will include both properties of general interest and specific requirements for flexible barrier use.

4.3 *Specification Format*—Specifications will be prepared in accordance with *Form and Style for ASTM Standards*.⁵ To the maximum extent feasible, the statement of numerical requirement values shall be in the form of a cell system. These in turn should be categorized where possible into degrees of severity of service for which the particular property range is intended (that is, mild, moderately heavy, heavy).

5. Detailed Requirements

5.1 *Tolerances*—All requirements with numerical values will have tolerances stated as ranges: minimum-maximum, or plus or minus percentages of the desired value.

5.2 *Proprietary Values*—Requirements should be based on values representative of more than one manufacturer's product where possible.

5.3 *Requirements:*

5.3.1 Physical requirements shall include the following as applicable:

5.3.1.1 *Thickness:*

- a) Gage.
- b) Uniformity.
- c) Yield.

5.3.1.2 *Appearance:*

- a) Color.

¹ This practice is under the jurisdiction of ASTM Committee F2 on Flexible Barrier Materials and is the direct responsibility of Subcommittee F02.50 on Package Design and Development.

Current edition approved July 30, 1976. Published October 1976.

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.

³ Withdrawn.

⁴ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁵ Available from: www.astm.org.