



Designation: D 4225 – 97

Standard Specification for Styrene-Butadiene Sheet¹

This standard is issued under the fixed designation D 4225; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers styrene-butadiene sheeting in thicknesses of 0.25 mm (0.01 in.) and greater. Sheetting conforming to this specification is intended for use in instrument housings and applications requiring resistance to impact. Methods of fabrication may require that the sheet be drawn or bent.

1.2 This specification covers natural and colored sheeting.

1.3 This specification covers quality requirements that include degree of orientation, amount of warpage or twist, dimensions, tolerances, and workmanship.

1.4 The values stated in SI units are to be regarded as the standard. The SI units given in parentheses are for information only.

1.5 This specification allows for the use of recycled plastics as defined in Guide D 5033.

1.6 The following precautionary statement pertains to the test method portion only, Section 12, of this specification: *This standard does not purport to address 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 similar or equivalent ISO standard.

2. Referenced Documents

2.1 ASTM Standards:

- D 256 Test Methods for Impact Resistance of Plastics and Electrical Insulating Materials²
- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²
- D 638 Test Method for Tensile Properties of Plastics²
- D 883 Terminology Relating to Plastics²
- D 1238 Test Method for Flow Rates of Thermoplastics by Extrusion Plastometer²

D 1525 Test Method for Vicat Softening Temperature of Plastics²

D 1898 Practice for Sampling of Plastics²

D 2732 Test Method for Unrestrained Linear Thermal Shrinkage of Plastic Film and Sheet³

D 3892 Practice for Packaging/Packing of Plastics³

D 4549 Specification for Polystyrene Molding and Extrusion Materials (PS)⁴

D 5033 Guide for the Development of Standards Relating to the Proper Use of Recycled Plastics⁴

2.2 Federal Standard:⁵

Fed. Std. No. 406, Plastics: Methods of Testing (Method 6051, Warpage)

2.3 Military Standard:⁶

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes

3. Terminology

3.1 **Definitions:** Unless otherwise indicated, the terminology used in this specification is in accordance with definitions given in Terminology D 883.

4. Classification

4.1 The styrene-butadiene sheeting in accordance with this specification is classified by Type (see Table 1) as follows:

4.1.1 **Type I**—Low shrinkage.

4.1.2 **Type II**—Intermediate shrinkage.

4.1.3 **Type III**—High shrinkage.

4.2 The styrene-butadiene sheeting is further divided into classes as follows:

4.2.1 Class 1 - Natural

4.2.2 Class 2 - As specified by user

4.3 Sizes

4.3.1 Size A: .05 by 1m.

4.3.2 Size B: as specified by user.

4.4 The sheeting covered by this specification shall be

¹ This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.19 on Film and Sheetting.

Current edition approved July 10, 1997. Published April 1998. Originally published as D 4225 – 83. Last previous edition D 5225 – 90.

² *Annual Book of ASTM Standards*, Vol 08.01.

³ *Annual Book of ASTM Standards*, Vol 08.02.

⁴ *Annual Book of ASTM Standards*, Vol 08.03.

⁵ Available from Superintendent of Documents, U.S. Government Printing Office, North Capital and H Sts., NW, Washington, DC 20401.

⁶ Available from Standardization Documents, Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.