



## Standard Specification for Rubber Cellular Cushion Used for Carpet or Rug Underlay<sup>1</sup>

This standard is issued under the fixed designation D 3676; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

### 1. Scope

1.1 This specification covers high-density cellular rubber adhered to carpet, rugs, or various substrates for use as separate underlay.

NOTE 1—This specification does not cover separately blown sponge.

1.2 This specification provides material and dimensional requirements and test methods for specific properties of compression set, compression resistance, delamination strength, and accelerated aging.

NOTE 2—This specification does not include requirements for burning characteristics. It should be noted that Flammable Fabrics Act Regulations FF1-70, Standard for the Surface Flammability of Carpets and Rugs, and FF2-70, Standard for the Surface Flammability of Small Carpets and Rugs,<sup>2</sup> may be applicable for carpets and rugs with integral backing of rubber cellular cushion.

1.3 The following safety hazards caveat pertains to Sections 9-16 of this standard. *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 3—There is no similar or equivalent ISO standard.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- D 395 Test Methods for Rubber Property—Compression Set<sup>3</sup>
- D 573 Test Method for Rubber—Deterioration in an Air Oven<sup>3</sup>
- D 751 Test Methods for Coated Fabrics<sup>4</sup>
- D 1056 Specification for Flexible Cellular Materials—Sponge or Expanded Rubber<sup>4</sup>
- D 3574 Test Methods for Flexible Cellular Materials—Slab, Bonded, and Molded Urethane Foams<sup>4</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.22 on Cellular Plastics.

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This edition includes the addition of an ISO equivalency statement, crosshead speed for the compression resistance test, modified recovery time in the compression set test, and keywords.

<sup>2</sup> Code of Federal Regulations, Vol 16, Chapter II, Parts 1630 and 1632.

<sup>3</sup> Annual Book of ASTM Standards, Vol 09.01.

<sup>4</sup> Annual Book of ASTM Standards, Vol 09.02.

D 3767 Practice for Rubber—Measurement of Dimensions<sup>3</sup>

2.2 Federal Standard:

Fed. Std. No. 191 Textile Test Methods, Method 5100—Breaking Strength and Elongation of Woven Cloth; Grab Method<sup>5</sup>

### 3. Significance and Use

3.1 The purpose of this specification is to provide meaningful tests for rubber cellular cushion used for carpet or rug underlay.

### 4. Classification

4.1 The following classes of flexible, cellular, high-density rubber adhered to carpets, rugs, and separate substrates are covered.

4.1.1 *Class A*, for moderate traffic use within one and two family, multi-family, and care-type dwelling units. Moderate traffic areas are areas such as living rooms, dining rooms, bedrooms, and recreation rooms.

4.1.2 *Class B*, for heavy traffic use for public areas such as lobbies and corridors of multifamily and care-type facilities; entrances, stairways, and elevators.

### 5. Physical Requirements

5.1 The material shall conform to the requirements for physical properties prescribed in Table 1.

### 6. Sampling and Sample Preparation

6.1 Select representative samples of the lot being examined at random as required.

6.2 Each sample shall consist of a 200-mm (8-in.) wide strip taken across the full width of the finished rug, carpet or underlayment, or other substrate. For narrow products such as runners, it may be necessary to use a strip 300 mm (12 in.) or more to furnish all the test specimens. If the product is not homogeneous across the full width, reject the sample and obtain another sample. Prior to cutting, read the sample requirements so as to plan the cutting pattern properly.

6.3 Mark off 150 mm (6 in.) from the outer edges of the sample and cut all specimens from inside these lines. Divide this inside width into three approximately equal parts. After cutting the specimens, identify the originating area on the foam side.

<sup>5</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.