



Designation: D3676 – 18 (Reapproved 2024)

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

This standard is issued under the fixed designation D3676; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers high-density cellular rubber adhered to carpet and rugs. This specification can also be applied to various substrates, such as blown sponge rubber, used independently as carpet underlay.

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

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

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

D395 Test Methods for Rubber Property—Compression Set  
D573 Test Method for Rubber—Deterioration in an Air Oven  
D751 Test Methods for Coated Fabrics  
D883 Terminology Relating to Plastics  
D1056 Specification for Flexible Cellular Materials—Sponge or Expanded Rubber  
D3574 Test Methods for Flexible Cellular Materials—Slab, Bonded, and Molded Urethane Foams  
D3767 Practice for Rubber—Measurement of Dimensions  
D6576 Specification for Flexible Cellular Rubber Chemically Blown

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

Current edition approved Sept. 1, 2024. Published September 2024. Originally approved in 1978. Last previous edition approved in 2018 as D3676 - 18. DOI: 10.1520/D3676-18R24.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [www.astm.org/contact](http://www.astm.org/contact). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

2.2 *Federal Standard:*

Fed. Std. No. 191 Textile Test Methods, Method 5100—Breaking Strength and Elongation of Woven Cloth; Grab Method<sup>3</sup>

### 3. Terminology

3.1 *Definitions*—For definitions used in this test method, refer to Terminology D883.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *rubber, n*—a material that is capable of recovering from large deformations quickly and forcibly, and can be, or already is, modified to a state in which it is essentially insoluble (but can swell) in boiling solvent (such as benzene, methyl ethyl ketone, and ethanol-toluene azeotrope).

3.2.2 *cellular material, n*—a generic term for materials containing many cells (either open or closed, or both) dispersed throughout the mass.

3.2.3 *flexible cellular material, n*—a flexible cellular organic polymeric material that will not rupture within 60 s when a specimen 8 by 1 in. (200 by 25 by 25 mm) is bent around a 1-in. (25-mm) diameter mandrel at a uniform rate of 1 lap/5 s in the form of a helix at a temperature between 65 and 85°F (18 and 29°C).

3.2.4 *open cell, n*—a product whose cells are not totally enclosed by its walls and open to the surface, either directly or by interconnecting with other cells.

3.2.5 *closed cell, n*—a product whose cells are totally enclosed by its walls and hence not interconnecting with other cells.

3.2.6 *sponge rubber, n*—cellular rubber consisting predominantly of open cells made from a solid rubber compound.

### 4. Summary of Test Method

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

NOTE 2—This specification does not include requirements for burning characteristics. It shall be noted that Flammable Fabrics Act Regulations

<sup>3</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.