



Designation: D3738 – 16 (Reapproved 2022)

Standard Specification for Rubber-Coated Cloth Hospital Sheeting¹

This standard is issued under the fixed designation D3738; 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 U.S. Department of Defense.

1. Scope

1.1 This specification covers rubber-coated cloth sheeting intended for use in the protection of mattresses on hospital beds.

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

1.3 The following safety hazards caveat pertains only to the test methods portion, Section 9, of this specification. *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.*

1.4 *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:²

[D573 Test Method for Rubber—Deterioration in an Air Oven](#)

[D751 Test Methods for Coated Fabrics](#)

[D3393 Specification for Coated Fabrics—Waterproofness](#)

2.2 U.S. Government Document:³

[Food and Drug Administration Code of Federal Regulations, Title 21, Parts 177 and 182](#)

¹ This specification is under the jurisdiction of ASTM Committee D11 on Rubber and Rubber-like Materials and is the direct responsibility of Subcommittee D11.37 on Coated Fabrics, Rubber Threads and Seals.

Current edition approved Oct. 1, 2022. Published November 2022. Originally approved in 1978. Last previous edition approved in 2016 as D3738 – 16. DOI: 10.1520/D3738-16R22.

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 Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.

3. Ordering Information

3.1 Orders for rubber-coated cloth sheeting should specify in the contract or purchase order the following information:

3.1.1 Quantity of cloth per finished roll (6.1),

3.1.2 Sample size and frequency for testing (8.1),

3.1.3 Certification (11.1),

3.1.4 Marking necessity (12.1), and

3.1.5 Special packaging (13.1).

4. Materials and Manufacture

4.1 Materials:

4.1.1 The base cloth shall be woven or knitted from cotton yarn, synthetic yarn, or a blend of cotton and synthetic yarn.

4.1.2 The coating compound shall be natural rubber, synthetic rubber, or a mixture of natural and synthetic rubbers suitably formulated and colored with a white pigment to meet the requirements of this specification.

4.1.3 Compounding materials shall be permitted in accordance with Code of Federal Regulations, Title 21, Food and Drug Administration Part 177 (Indirect Food Additives: Polymers), particularly 21 CFR 177.2600 (Rubber Articles Intended for Repeated Use, or Part 182—Substances Generally Recognized as Safe (GRAS).

4.2 *Manufacture*—The base cloth shall be coated uniformly on both sides with equal amounts of the coating compound. The coated fabric may be dusted with a talc that does not support mildew growth. The coated cloth shall be vulcanized to meet the physical requirements of Table 1 and the performance requirements specified in Section 5.

5. Performance Requirements

5.1 *Resistance to Phenol and Isopropyl Alcohol*—Coated cloth shall show no evidence of softening, tackiness, hardening, peeling, or blistering when exposed to a 5 % phenol-water solution and a 70 % isopropyl alcohol-water solution in accordance with 9.7 and 9.8.

5.2 *Resistance to Heat Aging*—Coated cloth shall show no evidence of stiffness, brittleness, tackiness, or discoloration after exposure to heat in accordance with 9.9.