



Standard Specification for Rubber-Coated Cloth Hospital Sheeting¹

This standard is issued under the fixed designation D 3738; 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 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.

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

2. Referenced Documents

2.1 ASTM Standards:

D 573 Test Method for Rubber—Deterioration in an Air Oven²

D 751 Test Methods for Coated Fabrics³

D 3393 Specification for Coated Fabrics—Waterproofness³

2.2 U.S. Government Document:

Food and Drug Administration, Code of Federal Regulations, Title 21, Part 177 or Part 182⁴

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 (7.1),

3.1.3 Certification (12.1),

3.1.4 Marking necessity (13.1), and

3.1.5 Special packaging (14.1).

4. Materials and Manufacture

4.1 Materials:

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² *Annual Book of ASTM Standards*, Vol 09.01.

³ *Annual Book of ASTM Standards*, Vol 09.02.

⁴ Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

4.1.1 The base cloth shall be hospital sheeting woven 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.

4.2 *Manufacture*—The base cloth (4.1.1) shall be coated uniformly on both sides with equal amounts of the coating compound (4.1.2). 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 chemical requirements specified in this specification.

5. Chemical Requirements

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

5.2 *Steam Sterilization*—Coated cloth shall show no evidence of softening, tackiness, hardening, peeling, or blistering when subjected to steam sterilization in accordance with 9.10.

6. Length of Roll

6.1 Unless otherwise specified in the contract or purchase order, cloth shall be furnished in rolls, 55 m (60 yd) of cloth per roll. The roll shall contain no more than three pieces and no piece shall be less than 5.5 m (6 yd) in length.

7. Workmanship, Finish, and Appearance

7.1 Coated cloth shall not have any of the following defects:

7.1.1 Cuts, tears, or holes (including pinholes).

7.1.1.1 Pinholes shall be detected by holding the 3 m (3 yd) samples (8.1) in front of an illuminated bulb (60 W minimum) while examining the entire area for the defects described in 7.1.

7.1.2 Uncoated areas.

7.1.3 Thinly coated areas.

7.1.4 Separation of cloth from coating.

7.1.5 Cracked coating.

7.1.6 Lumps or blisters.

7.1.7 Color, not white and uniform.

7.1.8 Curled or rolled edges.