



AMERICAN NATIONAL
STANDARD

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Standard Specification for RUBBER-LINED FIRE HOSE WITH WOVEN JACKET¹

This Standard is issued under the fixed designation D 296; 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.

1. Scope

1.1 This specification applies to the trade sizes of 38-mm (1½-in.), 51-mm (2-in.), and 64-mm (2½-in.) single-jacket and 38-mm (1½-in.), 51-mm (2-in.), 64-mm (2½-in.), 76-mm (3-in.), and 89-mm (3½-in.) multiple-jacket, rubber-lined fire hose suitable for use in public or private fire departments. Single-jacket hose may be provided with a protective cover. Hoses will be hydrostatically pressure-tested with couplings attached but the couplings or method of attachment are not covered by this standard.

2. Applicable Documents

2.1 ASTM Standards:

D 412 Tests for Rubber Properties in Tension²

D 572 Test for Rubber Deterioration by Heat and Oxygen Pressure³

D 3183 Rubber—Preparation of Pieces for Test from Other Than Standard Vulcanized Sheets²

3. Ordering Information

3.1 Orders for fire hose under this specification should include the following information:

3.1.1 ASTM designation,

3.1.2 Different jacket fibers, if required (see 4.1),

3.1.3 Conditions and location regarding hydrostatic pressure test (see 9.1),

3.1.4 Hose diameter size required (see 12.1), and

3.1.5 Length required (see 13.1).

4. Woven Jacket

4.1 The jackets shall be well, evenly, and firmly made from good cotton free from unsightly defects, dirt, knots, lumps, and irregu-

larities of twist as is consistent with good manufacturing practice. If agreed between the manufacturer and the purchaser at the time of the order, the jackets may be made in whole or in part of fibers other than cotton suitable for assuring satisfactory service life.

4.2 Each jacket shall be seamless and shall have the fillers woven around the hose throughout its length and the warps interwoven with and substantially covering the fillers. The jackets may be separate or interwoven.

5. Rubber Lining

5.1 The lining shall be made of a properly vulcanized rubber compound which will comply with all tests specified in Sections 6 to 8, inclusive. It shall be made from either calendered sheets, lap-jointed and vulcanized in one solid body, or from a single-ply extruded tube.

5.2 The waterway surface of the lining shall be smooth and partially free from pitting and other imperfections and from corrugations.

5.3 The lining shall be of uniform thickness and within the limits of thickness, exclusive of backing, shown in Table 1.

5.4 *Backing*—The backing, if used, shall not exceed 0.71 mm (0.028 in.) in thickness, as measured from the bottom of the corrugations. It need not be of the same composition as the rubber lining, but the adhesion between

¹ This specification is under the jurisdiction of ASTM Committee D-11 on Rubber and Rubber-Like Materials and is the direct responsibility of Subcommittee D11.31 on Rubber Hose.

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² *Annual Book of ASTM Standards*, Parts 35 and 37.

³ *Annual Book of ASTM Standards*, Part 37.