



Standard Specification for Rubber Sheet Gaskets¹

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This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers gaskets cut from sheet rubber that are intended for general gasket applications on water, air, and low-pressure steam. They are not intended for use with oils and strong acids.

1.2 The values stated in SI units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

D 395 Test Methods for Rubber Property—Compression Set²

D 412 Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers—Tension²

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

D 865 Test Method for Rubber—Deterioration by Heating in Air (Test Tube Enclosure)²

D 1415 Test Method for Rubber Property—International Hardness²

D 2240 Test Method for Rubber Property—Durometer Hardness²

D 3182 Practice for Rubber—Materials, Equipment, and Procedures for Mixing Standard Compounds and Preparing Standard Vulcanized Sheets²

D 3183 Practice for Rubber—Preparation of Pieces for Test Purposes From Products²

3. Materials and Manufacture

3.1 Compounds furnished under this specification shall be manufactured from natural rubber, reclaimed rubber, synthetic rubber, or mixtures thereof, together with added compounding materials. The compound shall be suitably vulcanized. The material shall be of a uniform quality and thickness, and shall have a smooth or fine fabric surface.

4. Color

4.1 The material shall be red or black as specified.

5. Physical Properties

5.1 This material shall conform to the requirements as to physical properties prescribed in Table 1.

6. Dimensional Tolerances

6.1 The material shall conform to the requirements as to dimensional tolerances prescribed in Table 2.

7. Workmanship, Finish, and Appearance

7.1 All materials and workmanship shall be in accordance with good commercial practice, and the resulting stock shall be free from porous areas, air pockets, foreign matter, or other defects affecting serviceability.

8. Sampling

8.1 When proof of conformance with this specification is required, the samples shall be taken from the finished product whenever possible. When the thickness of the finished product is less than 1.6 mm ($\frac{1}{16}$ in.), the manufacturer shall, upon request of the purchaser, at the time of ordering, furnish a sufficient number of test slabs or blocks prepared in accordance with Practice D 3182 for the proper performance of the required tests. The slabs or blocks shall be prepared from a batch of compound similar to that used in the lot. In the case of gaskets cut from sheet, the manufacturer shall furnish a 305-mm (12-in.) square sample of the uncut sheet. Unless otherwise specified, a lot shall consist of all products of the same thickness, submitted for inspection at the same time. All samples shall be prepared in accordance with Practices D 3182 and D 3183.

9. Test Methods

9.1 The properties enumerated in this specification shall be determined in accordance with the following methods, except as modified in accordance with certain of the references given below:

9.1.1 *Hardness*—Test Methods D 1415 (preferred) or D 2240, except that superimposed buffed specimens, taken from sheet 1.6 mm ($\frac{1}{16}$ in.) thick and over, may be used.

9.1.2 *Tensile Strength*—Test Methods D 412. Percentage change in tensile strength shall be determined after air-aging for 94 ± 2 h at $70 \pm 2^\circ\text{C}$ ($158 \pm 3.6^\circ\text{F}$).

9.1.3 *Compression Set*—Test Method B of Test Methods

¹ This specification is under the jurisdiction of the ASTM Committee D11 on Rubber and is the direct responsibility of Subcommittee D11.36 on Seals.

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² Annual Book of ASTM Standards, Vol 09.01.