

Designation: D 3572 – 86 (Reapproved 1991)^{ε1}

Standard Consumer Product Specification for Household Laundry and Dishwasher Drain Hose¹

This standard is issued under the fixed designation D 3572; 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.

^{ε1} NOTE—Section 13, Keywords, was added editorially in March 1991.

1. Scope

1.1 This consumer product specification covers flexible drain hose which is typically nonreinforced tubing, made from elastomeric materials used on household dishwasher and laundry equipment (clothes washers), where the hose is exposed only to open-end water flow pressure and not to the static pressure of the household water supply system.

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

2. Referenced Documents

2.1 ASTM Standards:

D 380 Test Methods for Rubber Hose²

D 471 Test Method for Rubber Property—Effect of Liquids³

D 573 Test Method for Rubber—Deterioration in an Air Oven³

D 622 Test Methods for Rubber Hose for Automotive Air and Vacuum Brake System²

3. Significance and Use

3.1 The purpose of this consumer product specification is to establish nationally recognized quality requirements for dishwasher and laundry drain hose and to provide producers, distributors, and users with a basis for common understanding of the characteristics of this product.

4. Ordering Information

4.1 Orders for dishwasher and laundry drain hose should include the following information:

- 4.1.1 ASTM designation and year of issue,
- 4.1.2 Material,
- 4.1.3 Configuration, and
- 4.1.4 Inside diameter.

5. Materials and Manufacture

5.1 The material of the drain hose shall be of a type and quality to meet the requirements of this specification.

5.2 The hose shall have uniform surfaces and be free of roughness, stains, pinholes, and blisters.

5.3 The inside surfaces shall be free of lubricants and contaminants.

6. Physical Properties

6.1 Heat-aged properties shall be as listed, after specimens are aged for 70 h at atmospheric pressure in an air oven having a constant temperature of $70 \pm 2^\circ\text{C}$ ($158 \pm 3.6^\circ\text{F}$).

Property	Maximum Variation from Unaged Properties
Tensile strength	-25 %
Elongation	-35 %
Durometer	+10 points

6.2 Conduct the test in accordance with the Air-Heat Test of Test Methods D 380 and D 573.

7. Alkali Immersion

7.1 When a specimen is immersed for 24 h at $100 \pm 2^\circ\text{C}$ ($212 \pm 3.6^\circ\text{F}$) in a solution consisting of 1.5 g of Na_3PO_4 in 100 cm³ of distilled water having a solution pH of 11.8, the change in volume shall not be more than +15 %.

7.2 Conduct the test in accordance with Test Method D 471.

8. Hot Water Immersion

8.1 When a specimen is immersed for 24 h at $100 \pm 2^\circ\text{C}$ ($212 \pm 3.6^\circ\text{F}$) in distilled water, the change in volume shall not be more than 15 %.

8.2 Conduct the test in accordance with Test Method D 471.

9. Ozone Resistance

9.1 When tested, there shall be no visible cracking of the cover under 2× magnification.

9.2 The hose shall be tested in accordance with the Ozone Test of Test Methods D 380.

10. Burst Strength

10.1 Hose shall not burst below a pressure of 350 kPa (50 psi).

10.2 Conduct the test in accordance with the Bursting Test Methods D 380.

11. Kink Resistance

11.1 The collapse of the outside diameter of the hose at the middle point of the test length shall not exceed 25 %.

11.2 Conduct the test in accordance with the Bend Test of Test Methods D 622. Lengths are to be in accordance with Table 1.

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

Current edition approved March 27, 1986. Published May 1986. Originally published as D 3572 – 77. Last previous edition D 3572 – 80.

² Annual Book of ASTM Standards, Vol 09.02.

³ Annual Book of ASTM Standards, Vol 09.01.