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Standard Consumer Product Specification for Sink Spray Hose¹

This standard is issued under the fixed designation D 3573; 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 14, Keywords, was added editorially in March 1991.

1. Scope

1.1 This consumer product specification covers flexible water spray hose made from elastomeric materials used on household sinks, where the hose is exposed to intermittent 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

3. Significance and Use

3.1 The purpose of this consumer product specification is to establish nationally recognized quality requirements for sink spray 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 sink spray hose should include the following information:

- 4.1.1 ASTM designation and year of issue,
4.1.2 Material, and
4.1.3 Inside diameters.

5. Hose Construction

5.1 The hose shall consist of a tube, cover, and reinforcement to meet the requirements of this specification.

6. Materials and Manufacture

6.1 The material used in the hose shall be of a type and quality to meet the requirements of this specification.

6.2 The hose shall have uniform surfaces and be free of roughness, stain, pinholes, and blisters.

6.3 The inside surfaces shall be commercially free of lubricants and contaminants.

7. Physical Properties

7.1 Initial properties of tube and cover shall be a minimum tensile strength of 4.1 MPa (600 psi) and a minimum elongation of 175 %.

7.2 Heat-aged properties of tube and cover shall be as listed, after specimens of the tube and cover are aged 70 h at atmospheric pressure in an air oven having a constant temperature of 70 ± 2°C (158 ± 3.6°F).

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

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

8. Water Resistance

8.1 When the tube material is immersed for 24 h in distilled water at 94 to 100°C (200 to 212°F), the volume change shall not increase 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 Methods D 380.

10. Burst Strength

10.1 The hose, when pressure tested with water at 23 ± 2°C (73.4 ± 3.6°F), shall not burst below 2.4 MPa (350 psi) and when pressure tested with water at 50 ± 2°C (122 ± 3.6°F) shall not burst below 1.2 MPa (175 psi).

10.2 Conduct the test in accordance with the Bursting Tests of Methods D 380. Allow water to circulate through hose for a period of 5 min at test temperature before applying pressure.

11. Outside Diameter Growth

11.1 The hose shall not expand more than 25 % in outside diameter when pressurized for 3 min at 1.2 MPa (175 psi) at 23 ± 2°C (73.4 ± 3.6°F).

11.2 Conduct the test in accordance with the Hydrostatic Pressure Tests of Methods D 380, with the exception that the

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.

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² *Annual Book of ASTM Standards*, Vol 09.02.

³ *Annual Book of ASTM Standards*, Vol 09.01.