Designation: D 1047 – 95

An American National Standard

Standard Specification for Poly(Vinyl Chloride) Jacket for Wire and Cable[1]

This standard is issued under the fixed designation D 1047; 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 a durable general-purpose thermoplastic jacket made from poly(vinyl chloride) or the copolymer of vinyl chloride and vinyl acetate suitable for a minimum installing temperature of −10°C.

1.2 The values stated in inch-pound units are the standard, except in cases where SI units are more appropriate. The values in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards:*

D 470 Test Methods for Crosslinked Insulations and Jackets for Wire and Cable[2]

D 1499 Practice for Operating Light- and Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Plastics[3]

D 2633 Methods of Testing Thermoplastic Insulations and Jackets for Wire and Cable[4]

G 23 Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials[5]

3. Test Applicable for Sunlight and Weather Resistant Materials

3.1 The jacket shall retain a minimum of 80 % of its unexposed tensile strength and elongation after 720 h of exposure in a dual carbon-arc apparatus. Prepare the specimens in accordance with Test Methods D 470 for physical tests of insulations and jackets. Perform the test in accordance with Practice D 1499 using Method 1 of Practice G 23.

4. Physical Properties

4.1 The jacket shall conform to the requirements for physical properties prescribed in Table 1.

4.2 When used on single-conductor nonshielded cable rated 2001 to 5000 V phase to phase, the jacket shall also conform to the requirements for surface resistivity and U-bend discharge in Table 2.

5. Sampling

5.1 Sample the jacket in accordance with Methods D 2633 unless otherwise specified.

6. Test Methods

6.1 Unless otherwise specified, test the jacket in accordance with Methods D 2633.

7. Keywords

7.1 jacket for wire and cable; poly (vinyl chloride) jacket; thermoplastic jacket

[1] This specification is under the jurisdiction of ASTM Committee D-9 on Electrical and Electronic Insulating Materials and is the direct responsibility of Subcommittee D09.18 on Solid Insulations, Non-Metallic Shieldings, and Coverings for Electrical and Telecommunications Wires and Cables.

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[2] *Annual Book of ASTM Standards*, Vol 10.01.

[3] *Annual Book of ASTM Standards*, Vol 08.01.

[4] *Annual Book of ASTM Standards*, Vol 10.02.

[5] *Annual Book of ASTM Standards*, Vol 14.02.