



# Standard Specification for General-Purpose Ethylene-Propylene Rubber Jacket for Wire and Cable<sup>1</sup>

This standard is issued under the fixed designation D 2768; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers a weather and ozone-resisting crosslinked compound for use as the outer covering or jacket on insulated wires and cables. The polymer component of this material consists substantially of ethylene-propylene copolymer (EPM) or ethylene-propylene terpolymer (EPDM).

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 257 Test Methods for DC Resistance or Conductance of Insulating Materials<sup>2</sup>

D 470 Test Methods for Crosslinked Insulations and Jackets for Wire and Cable<sup>2</sup>

D 1499 Practice for Filtered Open-Flame Carbon-Arc Exposures of Plastics<sup>3</sup>

G 23 Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials<sup>4</sup>

## 3. Electrical Requirements

3.1 When used on single conductor nonshielded cables rated 2001 through 5000 V phase to phase, the jacket shall meet the following requirements of Test Methods D 470:

3.1.1 *Surface Resistivity*—The jacket shall have a surface resistivity equal to or greater than 200 000 M $\Omega$ .

3.1.2 *U-Bend Discharge*—There shall be no cable failure nor cracks in the jacket when a sample of completed cable is subjected to the U-bend discharge test at 150 V/mil (6 kV/mm) for at least 6 h.

## 4. Test Applicable for Sunlight and Weather Resistant Materials

4.1 The jacket shall retain a minimum of 80 % of its unaged 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.

## 5. Physical Requirements

5.1 The crosslinked jacket shall conform to the physical properties specified in Table 1.

## 6. Sampling

6.1 Sample the jacket in accordance with Test Methods D 470.

## 7. Test Methods

7.1 Unless otherwise instructed, test the jacket in accordance with Test Methods D 470.

## 8. Keywords

8.1 ethylene-propylene rubber; sunlight resistant; surface resistivity; U-bend discharge; weather resistant

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D09 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 Telecommunication Wires and Cables.

Current edition approved Feb. 15, 1995. Published April 1995. Originally published as D 2768–68. Last previous edition D 2768–89.

<sup>2</sup> *Annual Book of ASTM Standards*, Vol 10.01.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 08.01.

<sup>4</sup> Discontinued; see 1996 *Annual Book of ASTM Standards*, Vol 14.02.