



Designation: D4314 – 12

# Standard Specification for General-Purpose, Heavy-Duty, and Extra-Heavy-Duty Crosslinked Chlorosulfonated Polyethylene (CSM) Jackets For Wire and Cable<sup>1</sup>

This standard is issued under the fixed designation D4314; 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 crosslinked chlorosulfonated polyethylene<sup>2</sup> compounds suitable for use as outer coverings or jackets on electrical cables for general-purpose, heavy-duty, and extra-heavy-duty service.

1.2 These jacket materials are not recommended for cables installed at a temperature lower than  $-25^{\circ}\text{C}$ .

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>3</sup>

D470 Test Methods for Crosslinked Insulations and Jackets for Wire and Cable

D1248 Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable

D1711 Terminology Relating to Electrical Insulation

<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 D09.07 on Electrical Insulating Materials.

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<sup>2</sup> The term CSPE, as an abbreviation for Chlorosulfonated Polyethylene (CSM), is commonly used in the Wire and Cable industry.

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

## 3. Terminology

3.1 *Definitions*:

3.1.1 For definitions of terms used in this specification refer to Terminology D1711.

3.2 *Definitions of Terms Specific to This Standard*:

3.2.1 *aging (act of), n*—exposure of materials to air at  $100^{\circ}\text{C}$  for 168 h or oil at  $121^{\circ}\text{C}$  for 18 h.

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

4.1 For jackets requiring sunlight- and weather-resistance testing, test in accordance with “Weatherability for Colored Materials” in Specification D1248. Prepare the specimens in accordance with Test Methods D470 for physical tests of insulations and jackets.

## 5. Physical Properties

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

## 6. Sampling

6.1 Sample the jacket in accordance with Test Methods D470.

## 7. Test Methods

7.1 Unless otherwise instructed, test the jacket in accordance with Test Methods D470.

## 8. Keywords

8.1 crosslinked chlorosulfonated polyethylene jacket; cross-linked jacket; CSM; CSPE; extra-heavy-duty jacket; general-purpose jacket; heavy-duty jacket; rubber jacket