



Standard Specification for In-Service Care of Insulating Gloves and Sleeves¹

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1. Scope

1.1 This specification covers the in-service care, inspection, testing, and use voltage of insulating gloves and sleeves for protection from electrical shock.

1.2 The values stated in SI units are to be regarded as the standard. See IEEE/ASTM SI-10.

1.3 The following safety hazards caveat pertains only to the test method portion, Sections 6 and 7, of this specification. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For a specific warning statement, see 7.2.

2. Referenced Documents

2.1 ASTM Standards:²

D120 Specification for Rubber Insulating Gloves

D1051 Specification for Rubber Insulating Sleeves

D2865 Practice for Calibration of Standards and Equipment for Electrical Insulating Materials Testing

F696 Specification for Leather Protectors for Rubber Insulating Gloves and Mittens

F819 Terminology Relating to Electrical Protective Equipment for Workers

F1236 Guide for Visual Inspection of Electrical Protective Rubber Products

2.2 ANSI Standards:

C 39.5 Safety Requirements for Electrical and Electronic Measuring and Controlling Instrumentation³

IEEE/ASTM SI-10 Standard for Use of the International System of Units (SI): The Modern Metric System²

¹ This specification is under the jurisdiction of ASTM Committee F18 on Electrical Protective Equipment for Workers and is the direct responsibility of Subcommittee F18.15 on Worker Personal Equipment.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

3. Significance and Use

3.1 Compliance with this specification should continue to provide personnel with insulating gloves and sleeves of known and acceptable quality after initial acceptance in accordance with Specifications D120 and D1051. The specifications herein are to be considered as minimum requirements.

3.2 A margin of safety shall be provided between the maximum use voltage and the voltage at which the gloves and sleeves are retested. The relationship between retest voltage and maximum use voltage at which the gloves and sleeves shall be used is shown in Table 1.

3.2.1 When work is not being performed on energized conductors or equipment, or both, any contact with energized conductors or equipment, or both, would be limited to the phase-to-ground potential. If gloves are the only protection used in such operations, the phase-to-ground voltage to which the gloves may be exposed shall be limited to the maximum use voltage of that class glove as listed in Table 1.

3.3 The user of these types of protective equipment shall be knowledgeable of and instructed in the correct and safe inspection and use of such equipment.

4. Terminology

4.1 Definitions:

4.1.1 *ozone*—a very active form of oxygen that may be produced by corona, arcing, or ultraviolet rays.

4.1.2 For definitions of other terms, refer to Terminology F819.

5. Classification

5.1 Gloves and sleeves covered under this specification are designated as Type I or Type II; Class 00, Class 0, Class 1, Class 2, Class 3, or Class 4.

5.1.1 *Type I*, nonresistant to ozone, made from a high-grade *cis*-1,4-polyisoprene rubber compound of natural or synthetic origin, properly vulcanized.

5.1.2 *Type II*, ozone resistant, made of any elastomer or combination of elastomeric compounds.

5.1.3 The electrical properties correspond to those shown in Table 1. The class designations are those specified in Specifications D120 and D1051.