



Designation: D 120 – 02a

Standard Specification for Rubber Insulating Gloves¹

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This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers manufacturing and testing of rubber insulating gloves for protection of workers from electrical shock.

1.2 Two types of gloves are provided and are designated as Type I, non-resistant to ozone, and Type II, resistant to ozone.

1.3 Six classes of gloves, differing in electrical characteristics, are provided and are designated as Class 00, Class 0, Class 1, Class 2, Class 3, and Class 4.

1.4 The values stated in SI units are to be regarded as the standard. See ASTM SI 10.

1.5 The following safety hazards caveat pertains only to the test method portion, Sections 16, 17, 18, and 19, 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 specific precaution statements, see 18.2.

2. Referenced Documents

2.1 ASTM Standards:

D 297 Test Methods for Rubber Products—Chemical Analysis²

D 412 Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers—Tension²

D 518 Test Method for Rubber Deterioration—Surface Cracking²

D 573 Test Method for Rubber—Deterioration in an Air Oven²

D 624 Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers²

D 1149 Test Method for Rubber Deterioration—Surface Ozone Cracking in a Chamber²

D 1415 Test Method for Rubber Property—International Hardness²

D 2240 Test Method for Rubber Property—Durometer Hardness²

D 2865 Practice for Calibration of Standards and Equipment for Electrical Insulating Materials Testing³

F 819 Terminology Relating to Electrical Protective Equipment for Workers⁴

SI 10 Standard for Use of the International System of Units (SI): The Modern Metric System⁵

3. Terminology

3.1 Definitions:

3.1.1 *color splash*—a splash, smear, or streak of contrasting color evident on the inside or outside surface of the gloves that was deposited during the dipping operation and is vulcanized into the glove as part of the homogenous compound.

3.1.2 *glove cuff roll*—the roll or reinforced edge of an insulating glove at the cuff.

3.1.3 *halogenation treatment*—exposure of the entire glove surface area to a halogen for the purpose of reducing surface friction.

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

3.1.5 *user*—the employer or entity purchasing the equipment to be utilized by workers for their protection; in the absence of such an employer or entity, the individual purchasing and utilizing the protective equipment.

3.1.6 *working area*—all finger and thumb crotches, the palm (area between the wrist and the base of the finger and thumb) and the area of the finger and thumb facing the palm not extending beyond the center line of the crotch. See Fig. 1.

3.1.7 For definitions of other terms, refer to Terminology F 819.

4. Significance and Use

4.1 This specification covers the minimum electrical, chemical, and physical properties guaranteed by the manufacturer and the detailed procedures by which such properties are to be determined. The purchaser has the option to perform or have performed any of these tests in order to verify the

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. This standard replaces ANSI Standard J 6.6, which is no longer available.

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² Annual Book of ASTM Standards, Vol 09.01.

³ Annual Book of ASTM Standards, Vol 10.02.

⁴ Annual Book of ASTM Standards, Vol 10.03.

⁵ Annual Book of ASTM Standards, Vol 14.02.