



Standard Specification for Rubber Insulating Sheeting¹

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1. Scope

1.1 This specification covers testing of rubber insulating sheeting for use as a covering for the protection of workers from accidental contact with live electrical conductors, apparatus, or circuits.

1.2 Two types of sheeting, differing in chemical and physical characteristics, are provided and are designated as Type I, non-resistant to ozone and Type II, resistant to ozone.

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

1.4 Two styles of sheeting, differing in construction characteristics, are provided and are designated as Style A and Style B.

1.5 The follow safety hazards caveat applies only to the test method portion, Sections 17-19, 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 requirements prior to use.*

NOTE 1—Rubber Insulating Sheeting should remain flexible for use through normal temperature ranges.

NOTE 2—Rubber as used in this specification is a generic term that includes elastomers and elastomeric compounds, regardless of origin.

2. Referenced Documents

2.1 ASTM Standards:²

D149 Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

D412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension

¹ This specification is under the jurisdiction of ASTM Committee F18 on Electrical Protective Equipment for Workers and is the direct responsibility of Subcommittee F18.25 on Insulating Cover-Up 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.

D471 Test Method for Rubber Property—Effect of Liquids
D518 Test Method for Rubber Deterioration—Surface Cracking (Withdrawn 2007)³

D570 Test Method for Water Absorption of Plastics

D751 Test Methods for Coated Fabrics

D1048 Specification for Rubber Insulating Blankets

D1149 Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment

D1388 Test Method for Stiffness of Fabrics

D2136 Test Method for Coated Fabrics—Low-Temperature Bend Test

D2240 Test Method for Rubber Property—Durometer Hardness

2.2 Other Standards:

MVSS 302 Motor Vehicle Safety Standard 302 Flammability of Interior Materials⁴

UL 214 Standard for Tests for Flame-Propagation of Fabrics and Films⁵

ANSI C84.1 Voltage Ratings for Electric Power Systems and Equipment (60 Hz)⁶

3. Terminology

3.1 Definitions:

3.1.1 *user*—the entity employing the actual worker(s) utilizing the equipment; if no separate employer, then the individual.

3.1.2 *voltage, maximum use*—the ac voltage (rms) classification of the protective equipment that designates the maximum nominal design voltage of the energized system that may be safely worked. The nominal design voltage is equal to phase-to-phase voltage on multiphase circuits.

3.1.2.1 *Discussion*—If there is no multiphase exposure in a system area, and the voltage exposure is limited to phase (polarity on dc systems) to ground potential, the phase (polarity on dc systems) to ground potential shall be considered to be the nominal design voltage.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from the U.S. Department of Transportation, 400 7th Street SW, Room 6111, Mail Code: NSA-30, Washington, DC 20590.

⁵ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.

⁶ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.