



Standard Specification for Flexible Treated Sleeving Used for Electrical Insulation¹

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1. Scope

1.1 This specification covers electrical insulating sleeving suitable for use on lead wires and in connections in electrical apparatus, such as motors, transformers, and switch gears.

1.2 Materials under this specification are limited to a flexible tubular product made from a woven textile fiber base, such as cotton, rayon, nylon, or glass, thereafter impregnated, or coated, or impregnated and coated, with a suitable insulating material.

NOTE 1—This standard resembles IEC 60684-3-400 to 408 in title only. The content is significantly different.

2. Referenced Documents

2.1 ASTM Standards:

D 350 Test Methods for Flexible Treated Sleeving Used for Electrical Insulation²

D 1711 Terminology Relating to Electrical Insulation²

D 3636 Practice for Sampling and Judging Quality of Solid Electrical Insulating Materials³

D 4088 Practice for Preparation for Shipment of Solid Electrical Insulating Materials³

2.2 IEC Standard:

IEC 60684-3 Specification for Flexible Insulating Sleeving⁴

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, see Terminology D 1711.

4. Classification

4.1 Sleeving is categorized by the type of coating, base fabric material, dielectric breakdown voltage, temperature index, minimum wall thickness, and inside diameter, as follows:

4.1.1 *Type I*—A flexible treated sleeving made from organic-base fibers such as cotton, rayon, or nylon and impreg-

nated or coated with an insulating material which can be shown by applicable experience or accepted test to have a temperature index of 105.

4.1.2 *Type II*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material which can be shown by applicable experience or accepted test to have a temperature index of 130.

4.1.3 *Type III*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material, such as poly(vinyl chloride), which can be shown by applicable experience or accepted test to have a temperature index of 105.

4.1.4 *Type IV*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material, such as silicone resin or polytetrafluoroethylene, which can be shown by applicable experience or accepted test to have a temperature index of 200.

4.1.5 *Type V*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material, such as silicone elastomer, which can be shown by experience or accepted test to have a temperature index of 200.

4.1.6 *Type VI*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material, such as epoxies, polyesters, or acrylics, which can be shown by experience or accepted test to have a temperature index of 155.

4.1.7 *Type VII*—A flexible treated sleeving made from inorganic-base yarns such as fibrous glass and impregnated or coated with an insulating material which can be shown by experience or accepted test to have a temperature index of 180.

4.2 Grades of sleeving are identified in terms of minimum average dielectric breakdown voltage, as shown in Table 1.

4.3 Sleeving sizes are shown in Table 2, and are based on the size of round conductors that will fit snugly into the product without distortion of the sleeving.

5. Ordering Information

5.1 Orders for sleeving shall include the following information:

5.1.1 Type and color (Sections 4 and 6),

5.1.2 Grade (Section 4),

5.1.3 Size (Table 2),

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² *Annual Book of ASTM Standards*, Vol 10.01.

³ *Annual Book of ASTM Standards*, Vol 10.02.

⁴ Available from the American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.