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Standard Specification for KRAFT DIELECTRIC TISSUE, CAPACITOR GRADE¹

This standard is issued under the fixed designation D 1930; 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.

1. Scope

1.1 The specification describes kraft tissues suitable for use as dielectrics in capacitors. The requirements herein are typical and are within the capability of modern manufacturing practice.

1.2 The values in inch-pound units where stated are to be regarded as the standard. The metric equivalents of inch-pound units may be approximate.

2. Applicable Documents

2.1 ASTM Standards:

D 202 Sampling and Testing Untreated Paper Used for Electrical Insulation²

E 29 Recommended Practice for Indicating Which Places of Figures Are to Be Considered Significant in Specified Limiting Values^{2,3}

3. Types and Grades

3.1 Three types of tissue for principal uses, as shown in Table 1, are covered by this specification. Gradations within a type have developed on the basis of special needs and significant related tests, as illustrated by Types 1B and 1C.

4. Ordering Information

4.1 Orders for material to this specification shall specify paper, kraft dielectric tissue, thickness, width, diameter of rolls, type, and acceptable quality level (AQL), in accordance with this specification.

Example—Paper, kraft dielectric tissue, 0.30 mil (7.6 μ m) by 2 $\frac{1}{2}$ in. (70.6 mm), rolls 6 in. (150 mm) in outside diameter on 1 $\frac{1}{2}$ -in. (29-mm) inside diameter core. Type 2, per ASTM Specification D 1930.

5. Materials and Manufacture

5.1 This paper shall be made solely of unbleached sulfate pulp of coniferous origin. All coloring materials and other additives are prohibited.

5.2 Very high degrees of physical uniformity and cleanliness are essential to a satisfactory sheet.

6. Chemical Requirements

6.1 The chemical properties of this capacitor tissue shall conform to the requirements prescribed in Table 2.

7. Physical Requirements

7.1 The physical properties of this capacitor tissue shall conform to the requirements prescribed in Table 3, as well as the apparent density limits prescribed in Table 1. Additional requirements for special applications, and the test methods therefor, shall be as agreed upon by the purchaser and the seller.

8. Electrical Requirements

8.1 The electrical properties of this capacitor tissue shall conform to the requirements prescribed in Table 4. Additional requirements for special applications, and the test methods therefor, shall be as agreed upon by the purchaser and the seller.

¹ This specification is under the jurisdiction of ASTM Committee D-9 on Electrical Insulating Material and is the direct responsibility of Subcommittee D09.08 on Insulating Papers.

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² *Annual Book of ASTM Standards*, Part 39.

³ *Annual Book of ASTM Standards*, Part 41.