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## Standard Specification for NONORIENTED PROPYLENE PLASTIC FILM<sup>1</sup>

This standard is issued under the fixed designation D 2530; 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. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers the classification of nonoriented (Note 1) polypropylene film up to 0.25 mm (0.010 in.) in thickness. The film may contain colorants, stabilizers, or other additives, for example, for the improvement of the surface properties.

NOTE 1—Nonoriented film describes a product prepared directly by either the water bath or chill roll process and which has not been intentionally stretched in one or more directions.

1.2 The values stated in SI units are to be regarded as the standard.

### 2. Applicable Documents

#### 2.1 ASTM Standards:

- D 374 Tests for Thickness of Solid Electrical Insulation<sup>2</sup>
- D 618 Conditioning Plastics and Electrical Insulating Materials for Testing<sup>3</sup>
- D 882 Test for Tensile Properties of Thin Plastic Sheeting<sup>4</sup>
- D 1003 Test for Haze and Luminous Transmittance of Transparent Plastics<sup>4</sup>
- D 1505 Test for Density of Plastics by the Density-Gradient Technique<sup>4</sup>
- D 1894 Test for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting<sup>4</sup>
- D 1898 Recommended Practice for Sampling of Plastic<sup>4</sup>
- D 2457 Test for Specular Gloss of Plastic Films<sup>4</sup>
- D 3892 Practice for Packaging/Packing of Plastics<sup>4</sup>

#### 2.2 Military Standard:

- MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes<sup>5</sup>

### 3. Classification

3.1 The film covered in this specification

shall be designated by a type number composed by listing the desired cell limit for each specified property in the order shown in Table 1.

NOTE 2—An example of this classification system is:

| Type Number                            | 2     | 2     | 2     | 2     | 2     |
|----------------------------------------|-------|-------|-------|-------|-------|
| Haze (1.0 to 3.0)                      | _____ | _____ | _____ | _____ | _____ |
| Gloss (80 to 90)                       | _____ | _____ | _____ | _____ | _____ |
| Coefficient of friction (0.2 to 0.5)   | _____ | _____ | _____ | _____ | _____ |
| 1 % secant modulus (71 000 to 100 000) | _____ | _____ | _____ | _____ | _____ |
| Elongation at break (400 to 600)       | _____ | _____ | _____ | _____ | _____ |

This type number represents a high-quality film typical of the material being sold currently for over-wrap applications.

If a particular property were not considered to be important in the intended application, it could be omitted and replaced with a zero in the type number. For example, if coefficient of friction were not considered important in the type number just given, the type number would be 22022.

With this type of classification it is possible to describe a film with a combination of properties that would be impossible to manufacture with the present state of technology. For this reason it is advisable for persons using the specification for the first time to contact the film suppliers to determine what films are available before specifying any particular type number.

### 4. General Requirements

4.1 *Appearance*—The material shall have appearance qualities conforming with those produced by good commercial practice. It shall be

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<sup>2</sup> Annual Book of ASTM Standards, Parts 35 and 39.

<sup>3</sup> Annual Book of ASTM Standards, Parts 22, 35, and 39.

<sup>4</sup> Annual Book of ASTM Standards, Part 35.

<sup>5</sup> Available from Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, Pa. 19120.