



# Standard Specification for Orange Shellac and Other Indian Lacs for Electrical Insulation<sup>1</sup>

This standard is issued under the fixed designation D 784; 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 requirements and methods of test for three types and four grades of orange shellac and other lacs, typically used as bonding agents for mica splittings and reconstituted mica paper and as coating for other materials, as follows:

- 1.1.1 *Type I*—Orange Flake Shellac, Grades A, B, C, and D,
- 1.1.2 *Type II*—Button Lac, and
- 1.1.3 *Type III*—Garnet Lac.

1.2 Stick-lac and seed-lac are not covered by this specification.

NOTE 1—ISO Specifications 56–1 and 56–2 cover shellac. However, the equivalency of the ISO specification to this standard is unknown. Direct reference to the ISO standards may be made if it is necessary to determine equivalency.

## 2. Referenced Documents

### 2.1 ASTM Standards:

- D 29 Test Methods for Sampling and Testing Lac Resins<sup>2</sup>
- D 411 Test Methods for Shellac Used for Electrical Insulation<sup>3</sup>
- D 1711 Terminology Relating to Electrical Insulation<sup>3</sup>

### 2.2 ISO Standards:

- 56–1 Shellac—Specifications—Part 1: Hand-Made Shellac<sup>4</sup>
- 56–2 Shellac—Specifications—Part 2: Machine-Made Shellac<sup>4</sup>

## 3. Terminology

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

## 4. Ordering Information

4.1 Orders for material covered by this specification shall include the following:

- 4.2 Lot number and supplier's designation,
- 4.3 Type and grade,
- 4.4 Quantity in each bag or container, and
- 4.5 Total quantity.

## 5. Description of Materials

5.1 Type I is the commercial rosin-free grade of orange flake shellac. Type II customarily occurs in the form of circular disks about 76 mm (3 in.) in diameter and 3 mm ( $\frac{1}{8}$  in.) in thickness and is known to the trade as pure button lac. Type III is dark garnet in color and is known to the trade as pure garnet lac. Garnet lac is also manufactured in admixture with rosin and as a dewaxed lac, but these are not covered by this specification.

## 6. Properties

6.1 The material shall conform to the requirements prescribed in Table 1.

## 7. Test Methods

7.1 Determine the material sampled and the properties enumerated in this specification in accordance with Test Methods D 29 and D 411.

## 8. Certification

8.1 When specified in the purchase order or contract, a producer's or supplier's certification shall be furnished to the purchaser that the material complies with the requirements of this specification. A report of the test results shall be furnished when specified in the purchase order or contract.

## 9. Packaging and Package Marking

9.1 Packaging and marking shall be as agreed upon between the purchaser and the supplier.

## 10. Keywords

10.1 bonded mica paper; bonded mica splittings; button lac; garnet lac; lac; orange flake shellac

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-9 on Electrical and Electronic Insulating Materials and is the direct responsibility of Subcommittee D09.01 on Electrical Insulating Varnishes, Powders, and Encapsulating Compounds.

Current edition approved March 10, 1999. Published June 1999. Originally published as D 784 – 61. Last previous edition D 784 – 95.

<sup>2</sup> *Annual Book of ASTM Standards*, Vol 06.03.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 10.01.

<sup>4</sup> Available from American National Standards Association, 11 W. 42nd St., New York, NY 10036.