



Standard Specification for Orange Shellac and Other Indian Lacs for Electrical Insulation¹

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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. Refer directly to the ISO standards to determine equivalency.

1.3 The values stated in SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered standard.

2. Referenced Documents

2.1 *ASTM Standards*:²

[D29 Test Methods for Sampling and Testing Lac Resins \(Withdrawn 2005\)](#)³

[D411 Test Methods for Shellac Used for Electrical Insulation](#)

[D1711 Terminology Relating to Electrical Insulation](#)

2.2 *ISO Standards*:

[56–1 Shellac—Specifications—Part 1: Hand-Made Shellac](#)⁴

[56–2 Shellac—Specifications—Part 2: Machine-Made Shellac](#)⁴

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology [D1711](#).

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 manufactured in admixture with rosin and as a dewaxed lac. The admixture and dewaxed lac 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 [D29](#) and [D411](#).

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.

¹ This specification is under the jurisdiction of ASTM Committee D09 on Electrical and Electronic Insulating Materials and is the direct responsibility of Subcommittee D09.01 on Electrical Insulating Varnishes, Powders and Encapsulating Compounds.

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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.

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

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

*A Summary of Changes section appears at the end of this standard