



## Designation: D360 – 12 (Reapproved 2019)

# Standard Specification for Shellac Varnishes<sup>1</sup>

This standard is issued under the fixed designation D360; 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 shellac varnish consisting of a solution or “cut” of a specified type and grade of dry lac resin in specially denatured alcohol. Ninety-five percent (190 proof) ethyl alcohol, specially denatured according to Formula No. 1 of the Alcohol, Tobacco, and Firearms of the Treasury Dept., is the solvent most commonly used. However, other specially denatured alcohols and proprietary solvents are also used for this purpose.

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

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

[D29 Test Methods for Sampling and Testing Lac Resins](#) (Withdrawn 2005)<sup>3</sup>

[D207 Specification for Dry Bleached Lac \(Discontinued 2000\)](#) (Withdrawn 2001)<sup>3</sup>

[D237 Specification for Orange Shellac and Other Lacs](#) (Withdrawn 2006)<sup>3</sup>

## 3. Types, Grades, and Bodies

3.1 This specification covers two grades, A and B, of orange shellac varnish and two grades, regular and refined, of bleached

<sup>1</sup> This specification is under the jurisdiction of the ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.33 on Polymers and Resins.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> The last approved version of this historical standard is referenced on [www.astm.org](http://www.astm.org).

lac varnish. Each type and grade may be furnished in very light, light, medium, heavy, very heavy, or extra heavy body varnish, as specified.

## 4. Color

4.1 The color of shellac varnish shall be no darker than the color of a standard varnish of the same nonvolatile matter content mutually agreed upon between the purchaser and the seller.

NOTE 1—Attention is called to the fact that the purchaser and the seller must agree upon one of the two methods for determining color appearing in Test Methods D29.

## 5. Drying Time

5.1 Shellac varnish shall dry hard in 1 h. Shellac varnishes having a body greater than that for a light body varnish shall be thinned to the nonvolatile matter content of a light body varnish. Special conditions for this test may be made by mutual agreement between the purchaser and the seller.

## 6. Body and Cut

6.1 The body and cut of the respective types and grades shall be based on the percent of nonvolatile matter and shall conform to the following minimum requirements:

	Nonvolatile Matter, min, %	
	Orange, Grades A and B	Bleached, Regular and Refined
Very light body (3-lb (1.4-kg) cut) varnish	28.5	28.0
Light body (4-lb (1.8-kg) cut) varnish	35.0	34.5
Medium body (4.5-lb (2.0-kg) cut) varnish	37.5	37.0
Heavy body (5-lb (2.3-kg) cut) varnish	40.0	39.5
Very heavy body (6-lb (2.7-kg) cut) varnish	44.0	43.5
Extra heavy body (8-lb (3.6-kg) cut) varnish	51.0	50.5

NOTE 2—The term “cut” is defined as the number of pounds of dry lac resin (containing only that amount of moisture acceptable for proper cutting with the solvent to ensure a satisfactory varnish) that were added to 1 gal (3.8 L) of specified solvent in manufacturing the varnish.

Allowance has, therefore, been made for 2 % maximum moisture and other volatile matter and 3 % insoluble matter in orange shellac, and for 6 % moisture and other volatile matter in bleached lac, in arriving at a minimum value. Varnishes of the above specified bodies or “cuts” should