



Standard Specification for Gold Bronze Powder¹

This standard is issued under the fixed designation D 267; 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 (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the materials commercially known as gold bronze, pale gold bronze, and rich gold bronze powders.

2. Referenced Documents

2.1 ASTM Standards:

D 13 Specification for Spirits of Turpentine²

D 185 Test Methods for Coarse Particles in Pigments, Pastes, and Paints²

D 480 Test Methods for Sampling and Testing of Flaked Aluminum Powders and Pastes²

2.2 U.S. Federal Specification:

A-A-1800 Water-Resisting Spar Varnish³

3. Composition and Properties

3.1 The bronze powder shall be made from new ingot metals. It shall consist of fine polished flakes containing not less than 3 % of fatty or oily matter (polishing lubricant) to give good “leafing” properties.

3.2 The residue retained on a No. 100 (150- μ m) sieve, using alcohol as the wash liquid, shall not exceed 0.2 % (in accordance with Test Methods D 185).

3.3 The powder shall have good “leafing” properties. (By “leafing” is understood the property of forming an apparently continuous brilliant film over the entire free surface of a mixture of the powder in a suitable liquid (Note), within 1 min

after cessation of stirring the mixture.) In testing for leafing properties the powder shall be mixed in the proportion of 3 to 4 lb (370 to 475 g/L) to a gallon (3.8 L) of the liquid. As thus mixed it shall also give a free flowing, smooth, continuous coating in accordance with Test Methods D 480.

NOTE 1—A suitable liquid is made by mixing spar varnish conforming to the U. S. Federal Specification for Water-Resisting Spar Varnish (No. A-A-1800) with turpentine conforming to Specification D 13 in such proportions that the mixture will have a viscosity of 0.65 to 0.85 poises (*B* to *C* on the Gardner-Holdt scale).

3.4 The gold bronze powder shall be suitable for making gold bronze paint. It shall match in shade and fineness a reference sample mutually agreed upon by the purchaser and the seller.

4. Sampling

4.1 Two samples shall be taken at random from different packages from each lot, batch, day’s pack, or other unit of production in a shipment. When no markings distinguishing between units of production appear, samples shall be taken from different packages in the ratio of two samples for each 5 tons (inch-pound or SI), except that for shipments of less than 10 000 lb two samples shall be taken. At the option of the purchaser, the samples may be tested separately or after blending in equal quantities the samples from the same production unit to form a composite sample.

5. Test Methods

5.1 Test shall be conducted in accordance with the appropriate methods of ASTM International, where applicable. Test procedures not covered by ASTM methods shall be mutually agreed upon between the purchaser and the seller.

6. Keywords

6.1 bronze powders; leafing; spar varnish

¹ This specification is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.31 on Pigment Specifications.

Current edition approved Oct. 1, 2003. Published October 2003. Originally approved in 1927. Last previous edition approved in 1982 as D 267 – 82 (1999).

² *Annual Book of ASTM Standards*, Vol 06.03.

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098

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