Standard Specification for Gold Bronze Powder¹

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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:
- TT-V-121h 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-μm) 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 Method 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. TT-V-121 h) 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 the American Society for Testing and Materials, 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

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

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² Annual Book of ASTM Standards, Vol 06.03.

³ Available from Standardization Documents Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.