



Designation: D964 – 03 (Reapproved 2014)

# Standard Specification for Metallic Copper Powder for Use in Antifouling Paints<sup>1</sup>

This standard is issued under the fixed designation D964; 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 copper powder for use in antifouling paints.

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.

## 2. Referenced Documents

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

D185 Test Methods for Coarse Particles in Pigments

D283 Test Methods for Chemical Analysis of Cuprous Oxide and Copper Pigments

## 3. Composition

3.1 The pigment shall consist essentially of finely divided copper metal and shall conform to the following requirements:

<sup>1</sup> 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.

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<sup>2</sup> 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.

Copper, min, (Percent)	99
Coarse particles, 325 Mesh, max, (Percent)	1.0

## 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 10 000 lb (5000 kg), 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 Tests shall be conducted in accordance with the following ASTM test methods:

5.1.1 *Copper*—Test Methods D283.

5.1.2 *Coarse Particles*—Test Methods D185.

## 6. Keywords

6.1 antifouling paint; copper pigment; copper powder

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