Designation: D85 – 05 (Reapproved 2023)

Standard Specification for Ochre Pigment[1]

This standard is issued under the fixed designation D85; 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 ferrous earthy pigment included under the general term "ochre." The pigment may be purchased in the dry form.

1.2 *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:*[2]

D50 Test Methods for Chemical Analysis of Yellow, Orange, Red, and Brown Pigments Containing Iron and Manganese

D185 Test Methods for Coarse Particles in Pigments

D280 Test Methods for Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments

D387 Test Method for Color and Strength of Chromatic Pigments with a Mechanical Muller

D1208 Test Methods for Common Properties of Certain Pigments

3. Composition and Properties

3.1 The pigment shall be a hydrated oxide of iron permeating a siliceous base and shall be free from added impurities and added coloring matter. The pigment shall conform to the following requirements:

Ferric oxide, min, %	17
Calcium oxide, max, %	5
Lead chromate	none
Organic coloring matter	none
Moisture and other volatile matter, max, %	1.0
Coarse particles (total residue retained on a No. 325 (45 μm) sieve), max, %	1.0

3.2 The mass color and character of the tint and the tinting strength formed by a mixture with a white pigment shall be within mutually agreed upon limits of a standard acceptable to both 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 Tests shall be conducted in accordance with the appropriate ASTM test methods. Test procedures not covered by ASTM methods shall be mutually agreed upon between the purchaser and the seller.

5.2 *Chemical Analysis of Dry Pigment*—Test Methods D50.

5.3 *Coarse Particles*—Test Methods D185.

5.4 *Mass Color and Tinting Strength*—Test Method D387.

5.5 *Volatile Matter*—Test Methods D1208.

5.6 *Moisture*—Test Methods D280, Method A.

6. Keywords

6.1 ferrous; hydrated iron oxide; ochre; pigment

[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.

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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.