



Standard Specification for Ultramarine Blue Pigment¹

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1. Scope

1.1 This specification covers the dry pigment commercially known as ultramarine blue, suitable for use in paints, enamels, lacquers, and similar products.

2. Referenced Documents

2.1 *ASTM Standards:*

- D 185 Test Methods for Coarse Particles in Pigments, Pastes, and Paints²
- D 280 Test Methods for Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments²
- D 387 Test Method for Color and Strength of Color Pigments with a Mechanical Muller³
- D 1135 Test Methods for Chemical Analysis of Blue Pigments²
- D 1208 Test Methods for Common Properties of Certain Pigments²

3. Composition and Properties

3.1 The pigment shall be a manufactured product obtained by the calcining of mixtures of clays and silicas with sodium salts, sulfur, and carbonaceous material. It shall be a soft, dry, finely ground powder of good blue color, free of admixtures of color substances, and shall conform to the following requirements:

Matter soluble in water, max, %	1.5
Moisture and other volatile matter, max, %	4.0
Coarse particles (total residue retained on a No. 325 (45-µm) sieve), max, %	1.0
Organic colors or lakes	none

3.2 The mass color and character of the tint and the tinting strength formed by 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 following methods. Test procedures not covered by ASTM methods shall be mutually agreed upon between the purchaser and the seller.

5.2 *Identification*—Test Methods D 1135.

5.3 *Matter Soluble in Water*—Test Methods D 1135.

5.4 *Moisture and Other Volatile Matter in Dry Pigment*—Method A of Test Methods D 280 or Test Method D 1208.

5.5 *Coarse Particles*—Test Methods D 185.

5.6 *Organic Colors or Lakes*—Section 18 of Test Methods D 1135.

5.7 *Mass Color and Tinting Strength*—Test Method D 387.

6. Keywords

6.1 pigment; tint; tinting strength; ultramarine blue; white pigment

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

³ *Annual Book of ASTM Standards*, Vol 06.01.

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