



Standard Specification for Diatomaceous Silica Pigment¹

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^{ε1} NOTE—Keywords were added editorially in May 1996.

1. Scope

1.1 This specification covers two types of diatomaceous silica pigments for use in paints:

- 1.1.1 *Type A*—Standard fineness for general paint use.
- 1.1.2 *Type B*—Extra fine, for special uses.

NOTE 1—Silica pigments originating from crystalline rocks or sands are not covered by this specification.

NOTE 2—For additional information, see Test Methods D 719.

2. Referenced Documents

2.1 ASTM Standards:

- D 185 Test Methods for Coarse Particles in Pigments, Pastes, and Paints²
- D 719 Test Methods for Analysis of Diatomaceous Silica Pigment²
- D 1208 Test Methods for Common Properties of Certain Pigments²

3. Composition and Properties

3.1 The pigment shall be a diatomaceous silica especially produced by chemical, heat, and grading processes, and selected for use in paints and shall conform to the following requirements:

Loss on ignition, max., %	1.0
Matter soluble in HCl (1+2), max, %	3.0
Moisture and other volatile matter, max, %	1.0
Volume of settled pigment in petroleum spirits after 1 h, min, mL:	
Type A	35
Type B	25
Coarse particles (total residue retained on a 45-µm (No. 325) sieve), %:	
Type A	5.0 to 15.0
Type B	1.0 max

3.2 The color shall be within mutually agreed upon limits of a reference sample 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 10 000 lb (4540 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 Test shall be conducted in accordance with the following ASTM test methods, where applicable. Test procedures not covered by ASTM test methods shall be mutually agreed upon between the purchaser and the seller.

5.2 *Coarse Particles*—Test Methods D 185.

5.3 *Loss on Ignition and Moisture*—Test Methods D 1208.

6. Keywords

6.1 diatomaceous earth; diatomaceous silica; pigment

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

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