



## Standard Guide for Chemical Analysis of White Pigments<sup>1</sup>

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*This standard has been approved for use by agencies of the Department of Defense.*

### 1. Scope

1.1 This guide covers procedures for the chemical analysis of white pigments.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- C 471M Test Methods for Chemical Analysis of Gypsum and Gypsum Products<sup>2</sup>
- D 715 Test Methods for Analysis of Barium Sulfate Pigment<sup>3</sup>
- D 717 Test Methods for Analysis of Magnesium Silicate Pigment<sup>3</sup>
- D 718 Test Methods for Analysis of Aluminum Silicate Pigment<sup>3</sup>
- D 719 Test Methods for Analysis of Diatomaceous Silica Pigment<sup>3</sup>
- D 1199 Specification for Calcium Carbonate Pigments<sup>3</sup>
- D 1301 Test Methods for Chemical Analysis of White Lead Pigments<sup>3</sup>

<sup>1</sup> This guide 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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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.01.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 06.03.

- D 1394 Test Methods for Chemical Analysis of White Titanium Pigments<sup>3</sup>
- D 3280 Test Methods for Analysis of White Zinc Pigments<sup>3</sup>

### 3. Significance and Use

3.1 This compilation of available ASTM methods for the analysis of white pigment serves as a guide to chemists.

### 4. Test Methods

4.1 Tests shall be conducted in accordance with the following ASTM methods. Test procedures not covered by ASTM methods shall be agreed upon by the purchaser and seller.

- 4.2 *Lead Pigments*—Test Method D 1301.
- 4.3 *Zinc Pigments*—Test Methods D 3280.
- 4.4 *Titanium Dioxide Pigments*—Test Methods D 1394.
- 4.5 *Calcium Carbonate Pigments: Whiting, Paris White, Spanish White, Chalk*—Specification D 1199.
- 4.6 *Calcium Sulfate Pigments: Gypsum, Terra Alba, Plaster of Paris*—Test Methods C 471M.
- 4.7 *Barium Pigments: Barytes or Barite and Blanc Fixe*—Test Methods D 715.
- 4.8 *Silica Pigments*—Test Methods D 719.
- 4.9 *China Clay*—Test Method D 718.
- 4.10 *Magnesium Silicate*—Test Methods D 717.

### 5. Keywords

- 5.1 chemical analysis; white pigment

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