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Standard Guide for Chemical Analysis of White Pigments¹

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This standard has been approved for use by agencies of the U.S. 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:*²

[C471M Test Methods for Chemical Analysis of Gypsum and Gypsum Products \(Metric\)](#)

[D715 Test Methods for Analysis of Barium Sulfate Pigment](#)

[D717 Test Methods for Analysis of Magnesium Silicate Pigment](#)

[D718 Test Methods for Analysis of Aluminum Silicate Pigment](#)

[D1199 Specification for Calcium Carbonate Pigments](#)

[D1301 Test Methods for Chemical Analysis of White Lead Pigments](#)

[D1394 Test Methods for Chemical Analysis of White Titanium Pigments](#)

[D3280 Test Methods for Analysis of White Zinc Pigments](#)

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 Methods [D1301](#).

4.3 *Zinc Pigments*—Test Methods [D3280](#).

4.4 *Titanium Dioxide Pigments*—Test Methods [D1394](#).

4.5 *Calcium Carbonate Pigments: Whiting, Paris White, Spanish White, Chalk*—Specification [D1199](#).

4.6 *Calcium Sulfate Pigments: Gypsum, Terra Alba, Plaster of Paris*—Test Methods [C471M](#).

4.7 *Barium Pigments: Barytes or Barite and Blanc Fixe*—Test Methods [D715](#).

4.8 *China Clay*—Test Method [D718](#).

4.9 *Magnesium Silicate*—Test Methods [D717](#).

¹ This guide 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.