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

This standard is issued under the fixed designation D 34; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*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:*<sup>2</sup>

C 471M Test Methods for Chemical Analysis of Gypsum and Gypsum Products [Metric]

D 715 Test Methods for Analysis of Barium Sulfate Pigment

D 717 Test Methods for Analysis of Magnesium Silicate Pigment

D 718 Test Methods for Analysis of Aluminum Silicate Pigment

~~D 719 Test Methods for Analysis of Diatomaceous Silica Pigment~~<sup>3</sup> 1199 Specification for Calcium Carbonate Pigments

~~D 1199 Specification for Calcium Carbonate Pigments~~<sup>3</sup> 1301 Test Methods for Chemical Analysis of White Lead Pigments

~~D 1301 1394 Test Methods for Chemical Analysis of White Lead~~ Titanium Pigments

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

D 3280 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 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.

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4.9 *Magnesium Silicate*—Test Methods D 717.

### 5. Keywords

5.1 chemical analysis; white pigment

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

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.