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Standard Guide for Chemical Analysis of White Pigments[1]

This standard is issued under the fixed designation D34; 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 (ε) indicates an editorial change since the last revision or reapproval.

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.

1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

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.

5. Keywords

5.1 chemical analysis; white pigment

[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.