



Designation: D34 – 08 (Reapproved 2014)

Standard Guide for Chemical Analysis of White Pigments¹

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.

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.

Current edition approved Dec. 1, 2014. Published December 2014. Originally approved in 1915. Last previous edition approved in 2008 as D34 – 08. DOI: 10.1520/D0034-08R14.

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.

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; <http://www.copyright.com/>