



NOTICE: This standard has either been superseded and replaced by a new version or discontinued.
Contact ASTM International (www.astm.org) for the latest information.

Standard Methods for CHEMICAL ANALYSIS OF TRIBASIC LEAD PHOSPHOSILICATE¹

This standard is issued under the fixed designation D 2742; 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.

1. Scope

1.1 These methods cover the chemical analysis of the pigment commercially known as tribasic lead phosphosilicate.

1.2 The analytical procedures appear in the following order:

	Sections
Lead Oxide	6 to 10
Phosphorus as P_2O_5	10 to 13
Silica	14 to 17
Moisture and Other Volatile Matter	18
Water of Hydration	19 and 20
Coarse Particles	21
Oil Absorption	22

1.3 Individual specimens may be used for direct PbO , P_2O_5 , and SiO_2 determinations. SiO_2 should be removed before PbO is determined. Removal of SiO_2 and PbO is recommended before determining P_2O_5 . The method for the P_2O_5 determination is satisfactory for specimens containing from 2 to 25 mg of P_2O_5 and the specimen size or aliquot should be varied accordingly.

2. Applicable Documents

2.1 ASTM Standards:

D 185 Tests for Coarse Particles in Pigments, Pastes, and Paints²

D 280 Test for Hygroscopic Moisture (and Other Matter Volatile Under the Test Conditions) in Pigments²

D 281 Test for Oil Absorption of Pigments by Spatula Rub-Out²

D 1193 Specification for Reagent Water³

3. Purity of Reagents

3.1 Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is in-

tended that all reagents shall conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society where such specifications are available.⁴ Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination.

3.2 Unless otherwise indicated, references to water shall be understood to mean to Type II reagent grade water conforming to Specification D 1193.

4. Safety Precautions

4.1 *Ammonium Hydroxide* causes severe burns and may be fatal if swallowed. Do not get liquid or vapor in eyes, on skin, or on clothing. Avoid breathing vapor. *For Eyes:* Immediately flush with water for at least 15 min. Call a physician. *External:* Flood with tap water. Remove contaminated clothing. Wash well before reuse. *Internal:* Do not give emetics. Do not induce vomiting. Give water with large amounts of diluted vinegar, lemon, or orange juice. Follow with milk or whites of eggs beaten in water. Call a physician.

¹ These methods are under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings and Materials and is the direct responsibility of Subcommittee D01-21 on Chemical Analysis of Paint and Paint Materials.

Current edition approved Sept. 28, 1979. Published December 1979. Originally published as D 2742 - 68. Last previous edition D 2742 - 73.

² *Annual Book of ASTM Standards*, Part 28.

³ *Annual Book of ASTM Standards*, Part 29.

⁴ "Reagent Chemicals, American Chemical Society Specifications," Am. Chemical Soc., Washington, D.C. For suggestions on the testing of reagents not listed by the American Chemical Society, see "Reagent Chemicals and Standards," by Joseph Rosin, D. Van Nostrand Co. Inc., New York, N.Y. and the "United States Pharmacopeia."