



Designation: D564 – 87 (Reapproved 2017)

Standard Test Methods for Liquid Paint Driers¹

This standard is issued under the fixed designation D564; 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 These test methods cover the test procedures to be applied to liquid paint driers used in paints and related coatings. Typical paint driers, listed in Specification D600, are carboxylates of lead, cobalt, manganese, zinc, iron, calcium, and zirconium.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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

- D234 Specification for Raw Linseed Oil (Withdrawn 2007)³
- D235 Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)
- D600 Specification for Liquid Paint Driers
- D1544 Test Method for Color of Transparent Liquids (Gardner Color Scale)

¹ These test methods are under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and are the direct responsibility of Subcommittee D01.21 on Chemical Analysis of Paints and Paint Materials.

Current edition approved July 1, 2017. Published July 2017. Originally approved in 1940. Last previous edition approved in 2014 as D564 – 87 (2014). DOI: 10.1520/D0564-87R17.

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.

³ The last approved version of this historical standard is referenced on www.astm.org.

- D1640 Test Methods for Drying, Curing, or Film Formation of Organic Coatings
- D1644 Test Methods for Nonvolatile Content of Varnishes
- D2090 Test Method for Clarity and Cleanness of Paint and Ink Liquids (Withdrawn 2007)³
- D2373 Test Method for Determination of Cobalt in Paint Driers by EDTA Method (Withdrawn 2016)³
- D2374 Test Method for Lead in Paint Driers by EDTA Method (Withdrawn 2016)³
- D2375 Test Method for Manganese in Paint Driers by EDTA Method (Withdrawn 2016)³
- D2613 Test Method for Calcium or Zinc in Paint Driers by EDTA Method
- D3804 Test Method for Iron in Paint Driers by EDTA Method
- D3924 Specification for Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials (Withdrawn 2016)³
- D3969 Test Method for Zirconium in Paint Driers by EDTA Method
- D3970 Test Method for Cerium in Paint Driers by Oxidimetric Determination
- D3980 Practice for Interlaboratory Testing of Paint and Related Materials (Withdrawn 1998)³
- D3988 Test Method for Vanadium in Paint Driers by EDTA Method
- D3989 Test Method for Total Rare Earth Metals in Paint Driers by EDTA Method

3. Significance and Use

3.1 Driers accelerate the drying of oil, paint, printing ink, and varnish.

3.2 These test methods are applicable to liquid driers manufactured for use in paints and related coatings.

3.3 The tests for metallic content using ethylenediaminetetraacetic acid dihydrate (EDTA) are intended for concentrated solutions of single metals; two or more metals may cause interference.

4. Physical Tests

- 4.1 *Sampling*—Sample in accordance with Practice D3980.