



Designation: D564 – 87 (Reapproved 2023)

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, health, and environmental 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- D234** Specification for Raw Linseed Oil (Withdrawn 2007)³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- D600** Specification for Liquid Paint Driers (Withdrawn 2021)³
- 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.

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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.

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 Standard Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials
- 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**.