



Standard Test Method for Evaluating Ink Stainblocking of Architectural Paint Systems by Visual Assessment¹

This standard is issued under the fixed designation D7514; 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.

1. Scope

1.1 This standard provides a method for evaluating the ability of an architectural paint system to block ink stains from markers and writing instruments from bleeding through a primer into a topcoat.

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.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D823 Practices for Producing Films of Uniform Thickness of Paint, Varnish, and Related Products on Test Panels

D1640 Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

3. Terminology

3.1 *Definitions:*

3.1.1 *stainblocking, n*—the ability of a paint or coating to prevent stains from bleeding through into the top finish.

¹ This test method is under the jurisdiction of ASTM Committee **D01** on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee **D01.42** on Architectural Coatings.

Current edition approved Jan. 1, 2014. Published February 2014. Originally approved in 2009. Last previous edition approved in 2009 as D7514 – 09. DOI: 10.1520/D7514-14.

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.

4. Summary of Test Method

4.1 A substrate, typically a painted surface or an uncoated building material, is stained using a series of ink writing implements.

4.2 The stained substrate is coated with the test paints and allowed to dry for a specified interval.

4.3 The test paints are top-coated with a wall paint and the test paint/topcoat system is evaluated for stainblocking effectiveness.

5. Significance and Use

5.1 This standard may be used by paint companies and raw material suppliers to assess effectiveness of interior architectural primers for blocking stains from bleeding through to a topcoat.

5.2 In practice, different ink-stained substrates may give various results for stainblocking performance for a primer and topcoat system. As such, this test method may be used for a number of different ink-stained surfaces.

6. Apparatus

6.1 *Film applicator*, such as a drawdown bar, capable of applying 0.075 to 0.100 mm (3 to 4 mil) wet film thickness with a minimum film width as needed to cover the test area defined in **9.2**.

6.2 *Ruler* or suitable straight edge instrument.

7. Reagents and Materials

7.1 *Substrate desired for testing*. The substrate must be able to accept a variety of ink marks and must have a uniform flat surface to enable paint films to be applied with a drawdown bar applicator. A sealed drawdown chart coated with a base paint is commonly used.

7.2 Staining media selected from among the following materials:

7.2.1 Permanent marker.

7.2.2 Washable marker.

7.2.3 Dry erase marker.

7.2.4 Ink pen.

7.2.5 Highlighter.