



Designation: D868 – 10 (Reapproved 2015)

Standard Practice for Determination of Degree of Bleeding of Traffic Paint¹

This standard is issued under the fixed designation D868; 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 practice describes test procedures for determining the degree of bleeding of traffic or pavement marking paints. A specific formulation for a solventborne traffic paint formulation is included as a potential bleeding reference control.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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

[D226 Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing](#)

[D227 Specification for Coal-Tar-Saturated Organic Felt Used in Roofing and Waterproofing](#)

[D476 Classification for Dry Pigmentary Titanium Dioxide Products](#)

[D867 Specification for Pumice Pigment \(Withdrawn 1993\)](#)³

[D1199 Specification for Calcium Carbonate Pigments](#)

[D2244 Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates](#)

[E1347 Test Method for Color and Color-Difference Measurement by Tristimulus Colorimetry](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

¹ This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.44 on Traffic Coatings.

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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.

3.1.1 *bleeding characteristic, n*—that condition of discoloration manifested in traffic paint when applied to tar or asphaltic-type substrates.

3.1.1.1 *Discussion*—The amount of discoloration can be compared by comparing the color of the test coating and a specific reference coating using colorimetric measurements or by visual comparison to the amount of bleeding in a reference photograph.

4. Significance and Use

4.1 Solvents in a traffic paint may cause bleeding of pavement constituents into the traffic marking, thereby rendering the traffic marking less effective as a lane or directional indicator. This practice describes how to prepare a panel of the coating to be tested and a reference panel coated with a specific solventborne traffic paint to be used as a control for evaluation.

4.2 This practice can be particularly useful for evaluation of solventborne traffic paints, but it may also be used for other types of traffic markings including waterborne traffic paints.

4.3 Two basic procedures are described for measuring the amount of bleeding. The procedure used shall be agreed upon by the purchaser and seller.

5. Apparatus

5.1 *Film Applicator*—A conventional type drawdown gage that casts a film having a minimum width of 50 mm (2 in.) and an approximate wet thickness of 380 μm (15 mils) (using an applicator clearance of approximately 760 μm (30 mils)).

5.2 *Test Panel for Coal-Tar Substrate*—A 127 by 254-mm (5 by 10-in.) piece cut from a standard roll of so-called “6.8-kg (15-lb) coal-tar saturated heat resistant or rag felt.” Unless otherwise specified, use a Specification [D227](#) coal tar saturated felt.

5.3 *Test Panel for Asphalt Substrate*—A 127 by 254-mm (5 by 10-in.) piece cut from a standard roll of 6.8-kg (15-lb) asphalt-saturated felt. Unless otherwise specified, use a Specification [D226](#) (Type 1) asphalt saturated felt.

5.4 *Paint Composition for Use as a Control*—The paint composition shown in [Table 1](#) can be used as a control when applied to 6.8 kg (15 lb) felt. This formulation will show severe bleeding when applied on a coal tar substrate and a somewhat lower degree of bleeding when applied on the asphalt felt substrate.