



Standard Test Methods for Flammability of Aerosol Products¹

This standard is issued under the fixed designation D 3065 ; 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 Department of Defense.

1. Scope

1.1 These test methods cover the determination of flammability hazards for aerosol products.

1.2 These test methods appear in the following order:

	Section
Flame Projection Test	4 to 7
Tag Open-Cup Flash Point Test	8 to 12
Closed Drum Test	13 to 16

1.3 This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

1.4 *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:*

D 1310 Test Method for Flash Point and Fire Point of Liquids by Tag Open-Cup Apparatus²

E 1 Specification for ASTM Thermometers³

3. Significance and Use

3.1 These test methods were developed so that the Open Drum Test could be abandoned as a meaningful guide in establishing flammability hazards.

FLAME PROJECTION TEST

4. Apparatus

4.1 *Base*, 8 in. (203 mm) wide and 2 ft (0.6 m) long, marked

in 6-in. (152-mm) intervals.

4.2 *Rule*, 2 ft (0.6 m) long, marked in inches (or millimetres) to be supported horizontally on the side of the base and approximately 6 in. (152 mm) above it.

4.3 *Candle*, paraffin, approximately 1 in. (25 mm) in diameter and of such height that the top third of the flame is at the height of the horizontal rule, to be placed at the zero point in the base.

5. Conditioning

5.1 Condition the dispenser to $70 \pm 1^\circ\text{F}$ ($21 \pm 0.5^\circ\text{C}$).

6. Procedure

6.1 Conduct the test in a draft-free area that can be ventilated and cleared after each test.

6.2 Shake the dispenser, and hold it upright unless the label states otherwise.

6.3 Position the dispenser 6 in. (152 mm) from the flame source and spray for 4 s (one operator noting the extension of the flame and the other operating the dispenser) through the top third of the 2-in (51-mm) flame and essentially parallel to the rule.

NOTE 1—**Caution:** Do not spray large quantities in a small, confined area.

6.4 Record the results.

6.5 Free the space of any previously discharged material, repeat 6.2-6.4 twice again, and average the three results.

7. Report

7.1 The report shall include the following:

7.1.1 Product being tested,

7.1.2 Results of the three readings, and

7.1.3 Average of the three results.

TAG OPEN-CUP FLASH POINT TEST

8. Apparatus

8.1 *Flash Tester*, described in Appendix A1 of Method D 1310 modified by the addition of an open vessel to contain dry ice to chill the aerosol unit.

8.2 *Shield* (see Method D 1310, Appendix A1).

8.3 *Thermometer*—ASTM Aniline Point Thermometer having a range from -36.5 to $+107.5^\circ\text{F}$ and conforming to the requirements for Thermometer 33°F, as prescribed in Specification E 1.

¹ These test methods are under the jurisdiction of ASTM Committee D-10 on Packaging and is the direct responsibility of Subcommittee D10.32 on Consumer Packages. Originally developed by the Chemical Specialties Manufacturers Assn.

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² *Annual Book of ASTM Standards*, Vols 05.01 and 06.01.

³ *Annual Book of ASTM Standards*, Vols 05.03 and 14.03.