



Designation: D 139 – 95 (Reapproved 2001)^{ε1}

Standard Test Method for Float Test for Bituminous Materials¹

This standard is issued under the fixed designation D 139; 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.

^{ε1} NOTE—Editorial changes were made to Sections 2, 5.4.1, 7.4, and 7.7 January 2002.

1. Scope

1.1 This test method covers the float test for bituminous materials.

1.2 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. For a specific precaution statement, see 6.1.

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

2. Referenced Documents

2.1 ASTM Standards:

C 670 Practice for Preparing Precision and Bias Statements for Test Methods for Construction Materials²

D 140 Practice for Sampling Bituminous Materials³

D 244 Test Methods and Practices for Emulsified Asphalts³

D 2170 Test Method for Kinematic Viscosity of Asphalts (Bitumens)³

E 1 Specification for ASTM Thermometers⁴

2.2 IEC Standard:

IEC 60854 Methods of Measuring the Performance of Ultrasonic Pulse-Echo Diagnostic Equipment⁵

3. Summary of Test Method

3.1 A plug of bitumen is cast in a tapered collar. The assembled float and collar is then floated in the testing bath at the specified temperature. The time, in seconds, between placing the apparatus on the water and the water breaking through the material shall be taken as a measure of the consistency of the material under examination.

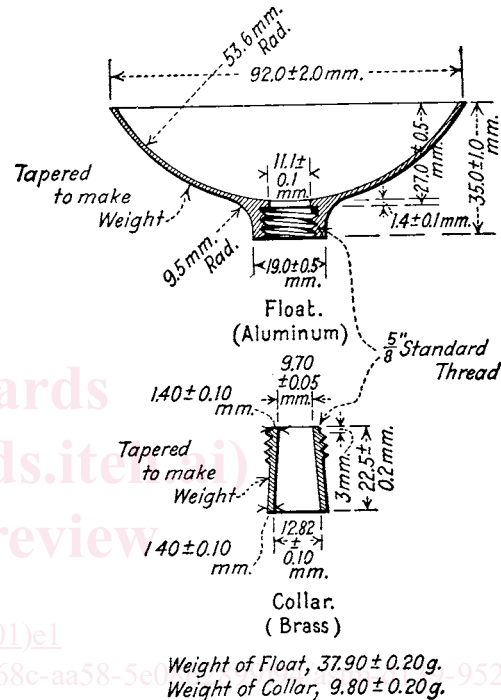


FIG. 1 Float Test Apparatus

4. Significance and Use

4.1 The float test characterizes the flow behavior or consistency of certain bituminous materials.

4.2 This test method is useful in determining the consistency of bitumen as one element in establishing the uniformity of certain shipments or sources of supply.

5. Apparatus

5.1 *Float*—The float (Fig. 1) shall be made of aluminum or aluminum alloy and shall be in accordance with the following requirements:

	Min	Normal	Max
Mass of float, g	37.70	37.90	38.10
Total height of float, mm	34.0	35.0	36.0
Height of rim above lower side of shoulder, mm	26.5	27.0	27.5
Thickness of shoulder, mm	1.3	1.4	1.5
Diameter of opening, mm	11.0	11.1	11.2

¹ This test method is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.44 on Rheological Tests.

Current edition approved Feb. 15, 1995. Published April 1995. Originally published as D 139 – 22 T. Last previous edition D 139 – 90^{ε1}.

² Annual Book of ASTM Standards, Vol 04.02.

³ Annual Book of ASTM Standards, Vol 04.03.

⁴ Annual Book of ASTM Standards, Vol 14.03.

⁵ Available from American National Standards Institute, 11 W 42nd St., New York, NY 10036.