

Standard Specification for

KINEMATIC GLASS VISCOMETERS¹



ASTM Designation: D 2515 - 66

This Standard of the American Society for Testing and Materials is issued under the fixed designation D 2515; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. This specification covers glass capillary kinematic viscometers of all types described in detail in Appendixes A, B, and C as follows:

Type	Appendix
Modified Ostwald Viscometers.	A
Suspended-Level Viscometers.	B
Reverse-Flow Viscometers.	C

NOTE—This specification covers viscometers suitable for use in ASTM Method D 445, Test for Viscosity of Transparent and Opaque Liquids (Kinematic and Dynamic Viscosities).²

Materials and Manufacture

2. (a) Fully annealed, low-expansion borosilicate glass shall be used for all viscometers. The size number, serial number, and manufacturer's designation shall be permanently marked on each viscometer. All timing marks shall be etched and filled with an opaque color, or otherwise made a permanent part of the viscometer.

¹ Under the standardization procedure of the Society, this specification is under the jurisdiction of the ASTM Committee D-2 on Petroleum Products and Lubricants. A list of members may be found in the ASTM Year Book.

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² Appears in this publication.

(b) With the exception of the Fitz-Simons and Atlantic viscometers, all viscometers are designed to fit through a 51-mm hole in the lid of a constant-temperature bath having a liquid depth of at least 280 mm; it is assumed that the surface of the liquid will be not more than 45 mm from the top of the bath lid. For certain constant-temperature baths especially at low or high temperatures, it may be necessary to construct the viscometers with the uppermost tubes longer than shown to ensure adequate immersion in the constant-temperature bath; viscometers so modified can be used to measure viscosity within the precision of the test method. The lengths of tubes and bulbs on the figures should be held within ± 10 per cent or ± 10 mm, whichever is less.

Nomenclature for Figures

3. The more frequently used letters on the figures in the appendixes are as follows:

<i>A</i>	Lower reservoir
<i>B</i>	Suspended level bulb
<i>C</i> and <i>J</i>	Timing bulbs
<i>D</i>	Upper reservoir
<i>E</i> , <i>F</i> , and <i>I</i>	Timing marks
<i>G</i> and <i>H</i>	Filling marks