This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D7344 – 17

Standard Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure (Mini Method)[1]

This standard is issued under the fixed designation D7344; 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 test method covers the procedure for the determination of the distillation characteristics of petroleum products and liquid fuels in the range of 20 °C to 400 °C (68 °F to 752 °F) using miniaturized automatic distillation apparatus.

1.2 This test method is applicable to such products as: light and middle distillates, automotive spark-ignition engine fuels, automotive spark-ignition engine fuels containing up to 10 % ethanol, aviation gasolines, aviation turbine fuels, all grades of No. 1 and No. 2 diesel fuels (as described in Specification D975), biodiesel (B100), biodiesel blends up to 30 % biodiesel, special petroleum spirits, pure petrochemical compounds, naphthas, white spirits, kerosenes, furnace fuel oils, and distillate marine fuels.

NOTE 1—The up to 10 % by volume ethanol limit in spark ignition engine fuels (E10) was the range used in the supporting interlaboratory studies. Spark ignition engine fuels containing > 10 % by volume ethanol and up to 20 % by volume ethanol (E20) may be analyzed, however the stated precision and bias does not apply.

1.3 This test method is designed for the analysis of distillate products; it is not applicable to products containing appreciable quantities of residual material.

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

1.5 *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.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D86 Test Method for Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure
D323 Test Method for Vapor Pressure of Petroleum Products (Reid Method)
D975 Specification for Diesel Fuel Oils
D1160 Test Method for Distillation of Petroleum Products at Reduced Pressure
D4057 Practice for Manual Sampling of Petroleum and Petroleum Products
D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products
D4953 Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method)
D5190 Test Method for Vapor Pressure of Petroleum Products (Automatic Method) (Withdrawn 2012)[3]
D5191 Test Method for Vapor Pressure of Petroleum Products (Mini Method)
D5482 Test Method for Vapor Pressure of Petroleum Products (Mini Method—Atmospheric)
D6300 Practice for Determination of Precision and Bias Data for Use in Test Methods for Petroleum Products and Lubricants
D6708 Practice for Statistical Assessment and Improvement of Expected Agreement Between Two Test Methods that Purport to Measure the Same Property of a Material

2.2 *Energy Institute Standards:*[4]

IP 69 Determination of Vapour Pressure—Reid Method
IP 394 Determination of Air Saturated Vapour Pressure

[1] This test method is under the jurisdiction of ASTM Committee D02 on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee D02.08 on Volatility.

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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.

[4] Available from Energy Institute, 61 New Cavendish St., London, WIG 7AR, U.K., http://www.energyinst.org.uk.

*A Summary of Changes section appears at the end of this standard

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