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: D4539 – 17

Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)[1]

This standard is issued under the fixed designation D4539; 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 estimating the filterability of diesel fuels in some automotive equipment at low temperatures.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 **Warning—**Mercury has been designated by EPA and many state agencies as a hazardous material that can cause central nervous system, kidney, and liver damage. Mercury, or its vapor, may be hazardous to health and corrosive to materials. Caution should be taken when handling mercury and mercury-containing products. See the applicable product Material Safety Data Sheet (MSDS) for details and EPA's website (http://www.epa.gov/mercury/faq.htm) for additional information. Users should be aware that selling mercury or mercury-containing products, or both, in your state may be prohibited by state law.

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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* For specific warning statements, see 1.3, 9.1, 9.2.1, 9.3, 9.5, and Annex A1.

1.5 *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]

D97 Test Method for Pour Point of Petroleum Products
D975 Specification for Diesel Fuel Oils
D1655 Specification for Aviation Turbine Fuels
D2500 Test Method for Cloud Point of Petroleum Products and Liquid Fuels
D3117 Test Method for Wax Appearance Point of Distillate Fuels (Withdrawn 2010)[3]
D3699 Specification for Kerosine
D4057 Practice for Manual Sampling of Petroleum and Petroleum Products
D4177 Practice for Automatic Sampling of Petroleum and Petroleum Products
D7962 Practice for Determination of Minimum Immersion Depth and Assessment of Temperature Sensor Measurement Drift
E1 Specification for ASTM Liquid-in-Glass Thermometers
E644 Test Methods for Testing Industrial Resistance Thermometers
E2251 Specification for Liquid-in-Glass ASTM Thermometers with Low-Hazard Precision Liquids
E2877 Guide for Digital Contact Thermometers

2.2 *Coordinating Research Council, Inc.*

CRC Report No. 528 Diesel Fuel Low-Temperature Operability Field Test[4]

2.3 *Canadian General Standards Board:*

CAN/CGSB-3.0, No. 14.01-M86, Low Temperature Flow Test (LTFT) for Diesel Fuels[5]

[1] This test method is under the jurisdiction of Committee D02 on Petroleum Products, Liquid Fuels, and Lubricants and is the direct responsibility of Subcommittee D02.07 on Flow Properties.

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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 Coordinating Research Council, Inc., 219 Perimeter Center Parkway, Atlanta, GA 30346.

[5] Available from CGSB Sales Centre, Ottawa, Canada K1A 1G6.

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

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