



Standard Specification for Middle Distillate Fuel Oil—Military Marine Applications¹

This standard is issued under the fixed designation D 6985; 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 specification covers one grade of 100 % middle distillate fuel oil (no residual contamination), Grade No. 2-LTD, for use in off-road applications requiring long-term storage stability. This grade of middle distillate fuel is similar to Specification D 975, Grade No. 2-D but with additional properties specified to provide storage stability, as well as other properties required by specific end use applications. This grade is intended for off-road applications such as military marine use (non-aviation gas turbine engines, compression ignition/diesel engines, and other non-automotive applications), emergency generators (military or commercial), as well as any other uses that require storage stable middle distillate fuel.

1.2 This specification, unless otherwise provided by agreement between the purchaser and the supplier, prescribes the required properties of middle distillate fuel at the time and place of delivery. Nothing in this specification shall preclude observance of federal, state, or local regulations that may be more restrictive.

1.3 During handling and use of all middle distillate fuels, the generation and dissipation of static electricity can create fire and explosion hazards. For more information on this subject see Guide D 4865.

1.4 The values stated in SI units are to be regarded as the standard.

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 requirements prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- D 56 Test Method for Flash Point by Tag Closed Cup Tester
- D 86 Test Method for Distillation of Petroleum Products at

- Atmospheric Pressure
- D 93 Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester
- D 129 Test Method for Sulfur in Petroleum Products (General Bomb Method)
- D 130 Test Method for Detection of Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test
- D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (the Calculation of Dynamic Viscosity)
- D 482 Test Method for Ash from Petroleum Products
- D 524 Test Method for Ramsbottom Carbon Residue of Petroleum Products
- D 613 Test Method for Cetane Number of Diesel Fuel Oil
- D 975 Specification for Diesel Fuel Oils
- D 976 Test Methods for Calculated Cetane Index of Distillate Fuels
- D 1266 Test Method for Sulfur in Petroleum Products (Lamp Method)
- D 1298 Test Method for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method
- D 1319 Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption
- D 1552 Test Method for Sulfur in Petroleum Products (High-Temperature Method)
- D 2500 Test Method for Cloud Point of Petroleum Products
- D 2622 Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry
- D 2709 Test Method for Water and Sediment in Middle Distillate Fuels by Centrifuge
- D 3117 Test Method for Wax Appearance Point of Distillate Fuels
- D 3828 Test Methods for Flash Point by Small Scale Closed Cup Tester
- D 4057 Practice for Manual Sampling of Petroleum and Petroleum Products
- D 4294 Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-ray Fluorescence Spectrometry
- D 4530 Test Method for Determination of Carbon Residue (Micro Method)

¹ This specification is under the jurisdiction of ASTM Committee D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.E0 on Burner, Diesel, Non-Aviation Gas Turbine, and Marine Fuels.

Current edition approved April 1, 2004. Published May 2004.

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.