



Standard Specification for Recycled Glycol Base Engine Coolant Concentrate for Automobile and Light-Duty Service¹

This standard is issued under the fixed designation D6472; 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 the requirements for recycled ethylene glycol base engine coolant concentrate and recycled propylene glycol base engine coolant concentrate for use in automobiles and light-duty vehicles. Committee D15 has developed this specification using experience, knowledge and research from recycling used aqueous base engine coolant and blends of used aqueous base engine coolant and virgin glycol. This standard does not apply to coolant produced from other glycol sources such as medical waste, distillation bottoms, airplane/airport deicers and polyester production waste. This specification provides a procedure for evaluating engine coolant recycling technologies through the recycling of a reference synthetic used engine coolant. It also specifies the chemical, physical, and performance requirements for the recycled glycol base engine coolant concentrate that is produced from that procedure. When used at 40 to 70 volume % in water, it will function effectively during both winter and summer. This material is intended to provide protection against freezing, boiling, and corrosion in automobile or other light-duty service cooling systems.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are approximate equivalents and provided for information only.

1.3 *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.*

2. Referenced Documents

2.1 ASTM Standards:²

D512 Test Methods for Chloride Ion in Water

¹ This specification is under the jurisdiction of ASTM Committee D15 on Engine Coolants and Related Fluids and is the direct responsibility of Subcommittee D15.15 on Recycled Engine Coolant.

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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.

D516 Test Method for Sulfate Ion in Water
D1119 Test Method for Percent Ash Content of Engine Coolants
D1120 Test Method for Boiling Point of Engine Coolants
D1121 Test Method for Reserve Alkalinity of Engine Coolants and Antirusts
D1122 Test Method for Density or Relative Density of Engine Coolant Concentrates and Engine Coolants By The Hydrometer
D1123 Test Methods for Water in Engine Coolant Concentrate by the Karl Fischer Reagent Method
D1126 Test Method for Hardness in Water
D1176 Practice for Sampling and Preparing Aqueous Solutions of Engine Coolants or Antirusts for Testing Purposes
D1177 Test Method for Freezing Point of Aqueous Engine Coolants
D1193 Specification for Reagent Water
D1287 Test Method for pH of Engine Coolants and Antirusts
D1293 Test Methods for pH of Water
D1384 Test Method for Corrosion Test for Engine Coolants in Glassware
D1881 Test Method for Foaming Tendencies of Engine Coolants in Glassware
D1882 Test Method for Effect of Cooling System Chemical Solutions on Organic Finishes for Automotive Vehicles
D2570 Test Method for Simulated Service Corrosion Testing of Engine Coolants
D2809 Test Method for Cavitation Corrosion and Erosion-Corrosion Characteristics of Aluminum Pumps With Engine Coolants
D2847 Practice for Testing Engine Coolants in Car and Light Truck Service
D3306 Specification for Glycol Base Engine Coolant for Automobile and Light-Duty Service
D3634 Test Method for Trace Chloride Ion in Engine Coolants
D4327 Test Method for Anions in Water by Suppressed Ion Chromatography
D4340 Test Method for Corrosion of Cast Aluminum Alloys in Engine Coolants Under Heat-Rejecting Conditions
D5827 Test Method for Analysis of Engine Coolant for Chloride and Other Anions by Ion Chromatography

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