



Designation: D 4985 – 00a3

Standard Specification for Low Silicate Ethylene Glycol Base Engine Coolant for Heavy Duty Engines Requiring a Pre-Charge of Supplemental Coolant Additive (SCA)¹

This standard is issued under the fixed designation D 4985; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers the requirements for low silicate ethylene glycol base engine coolants for cooling systems of heavy-duty engines. When concentrates are used at 40 to 60 % concentration by volume in water, or when prediluted glycol base engine coolants (50 volume % minimum) are used without further dilution, they will function effectively to provide protection against corrosion, freezing to at least -37°C (-34°F), and boiling to at least 108°C (226°F).

NOTE 1—This specification is based on the knowledge of the performance of engine coolants prepared from new or virgin ingredients. ~~A separate specification exists (D 6210 and D 6211) for heavy-duty engine coolants which may be prepared from recycled or reprocessed used coolant or reprocessed industrial-source ethylene glycol.~~

1.2 Coolants meeting this specification require an initial charge of a supplemental coolant additive (SCA) and require regular maintenance doses of an SCA to continue the protection in certain operating heavy-duty engine cooling systems, particularly those of the wet cylinder liner-in-block design. The SCA additions are defined by and are the primary responsibility of the engine manufacturer or vehicle manufacturer. If they provide no instructions, follow the SCA supplier's recommended instructions.

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

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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

¹ This specification is under the jurisdiction of ASTM Committee D15 on Engine Coolants and is the direct responsibility of Subcommittee D15.07 on Specifications. Current edition approved September 10, 2000. Published November 2000. Originally published as D 4985—89; approved in 1989. Last previous edition approved in 2000 as D 4985 – 00a.