



Designation: D 5222 – 9800

Standard Specification for High Fire-Point Mineral Electrical Insulating Oils¹

This standard is issued under the fixed designation D 5222; 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 describes a high fire-point mineral oil based insulating fluid, for use as a dielectric and cooling medium in new and existing power and distribution electrical apparatus, such as transformers and switchgear.

1.2 High fire-point insulating oil differs from conventional mineral insulating oil by possessing a fire-point of at least 300°C. High fire-point mineral insulating oils are also referred to as “less flammable” mineral insulating oils. This property is necessary in order to comply with certain application requirements of the National Electrical Code (Article 450-23) or other agencies. The material discussed in this specification is miscible with other petroleum based insulating oils. Mixing high fire-point liquids with lower fire point hydrocarbon insulating oils (for example, Specification D 3487 mineral oil) may result in fire points of less than 300°C.

1.3 This specification is intended to define a high fire-point electrical mineral insulating oil that is compatible with typical material of construction of existing apparatus and will satisfactorily maintain its functional characteristic in its application in this application. The material described in this specification may not be miscible with electrical insulating liquids of non-petroleum origin. The user should contact the manufacturer of the high fire-point insulating oil for guidance in this respect.

1.4 This specification applies only to new insulating material oil as received prior to any processing. Information on in-service

¹ This specification is under the jurisdiction of ASTM Committee D-27 on Electrical Insulating Liquids and Gases and is the direct responsibility of Subcommittee D27.01 on Mineral.

Current edition approved Oct. 10, ~~1998~~, 2000. Published ~~January 1999~~.

~~Originally~~ December 2000. Originally published as D 5222-92. Last previous edition D 5222-92ε.