

Standard Method for

CONVERSION OF KINEMATIC VISCOSITY TO SAYBOLT FUROL VISCOSITY¹



ASTM Designation: D 666 - 57

ADOPTED, 1944; REVISED, 1953, 1957.²

This Standard of the American Society for Testing Materials is issued under the fixed designation D 666; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. The conversion table and equations in this method provide means for converting kinematic viscosity to Saybolt Furol viscosity in seconds at 122 F and 210 F. Kinematic viscosity values are based on water being 1.0038 centistokes (cs) at 68 F.

Procedure

2. Convert kinematic viscosities of 48 to 400 cs at either 122 F or 210 F to equivalent Saybolt Furol viscosity values directly from Table I. Viscosities not

listed, but which are within the range given in Table I, may be obtained by linear interpolation. Calculate the Saybolt Furol viscosity equivalents for kinematic viscosities above 400 cs by use of the equation corresponding to the proper temperature, as given at the bottom of Table I.

NOTE.—Unnecessary interpolations can be avoided by use of expanded tables based on this method.³ ASTM Viscosity Tables for Kinematic Viscosity Conversions and Viscosity Index Calculations are published separately as *ASTM Special Technical Publication No. 43-B*. Copies may be obtained from ASTM Headquarters, 1916 Race St., Philadelphia 3, Pa.

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the ASTM Committee D-2 on Petroleum Products and Lubricants.

² Prior to adoption as standard, this method was published as tentative from 1942 to 1944.

In 1957, the procedure for converting kinematic viscosity at 210 F to Saybolt furol viscosity at 210 F was incorporated into Section 2 and Table I.

³ See Supporting Data for Extension of Standard Method for Conversion of Kinematic Viscosity to Saybolt Furol Viscosity (D 666 - 53) to Permit Conversion of Kinematic to Saybolt Furol Viscosities at 210 F, Appendix XIV, compilation of "ASTM Standards on Petroleum Products and Lubricants," November, 1957, p. 1054.

(Table I follows on p. 1211.)