APPLIKATION NOTE No°: 2807029

ASTM Methodes for the use of Refractometers for Petroleum Products

Recommended instruments: ATR-W2, ATR-W1, DSR-λ

ASTM_D1218-99
"Standard Test Method for Refractive Index and Refractive Dispersion of Hydrocarbon Liquids"

This test method covers the measurement of refractive indexes (accurate to six units in the fifth decimal place) and the refractive dispersion (accurate to twelve units in the fifth decimal place) of transparent and light colored hydrocarbon liquids which have refractive indexes in the range between 1.33 to 1.50 at temperatures from +20 to +30°C.

ASTM_D1747-99
"Standard Test Method for Refractive Index of Viscous Materials"

This test method covers the determination of the refractive indexes (accurate to two units in the fourth decimal place) of transparent and light colored hydrocarbon liquids which have refractive indexes in the range between 1.33 to 1.60 at temperatures from +80 to +100°C.

ASTM_D1807-00, 2005, (equivalent to ISO 5661)
"Standard Test Method for Refractive Index and Specific Optical Dispersion of Electrical Insulating Liquids"

This test method covers the determination of the refractive indexes and the specific optical dispersion of electrical insulating liquids such as are used in capacitors, transformers, circuit breakers and oil-filled cables. The determination of the refractive index is described in ASTM_D1218. The specific optical dispersion is calculated by dividing the refractive dispersion value by the relative density (specific gravity) of the testing liquid.

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