



RheoSense

Simply Precise®

Fast and Accurate Kinematic Viscosity Testing of Oils with microVISC PRO Oil

The microVISC PRO is equipped with an oil mode (microVISC PRO Oil) that allows for easily measuring your oils' kinematic viscosity under relevant temperature conditions. Driven by fast Peltier temperature control, this includes the temperature range of the chip (e.g. 4 – 70 °C), as well as elevated temperatures between 70.1 and 100 °C. Measurements at this higher range are achieved based on extrapolation from automatic measurements at 20 and 60 °C, utilizing the established equations found in ASTM D341 – 09 Annex A1.

All measurements are obtained from dynamic viscosity measurements and user-input oil densities. By storing these density values within the software for the most recent sample types measured, the system prevents manual data entry from becoming a bottleneck during high-throughput analysis.

Unlike legacy glass capillary viscometers that require extensive solvent cleaning and drying between every test, the continual sample testing feature of the microVISC PRO Oil allows you to run sample-after-sample without cleaning in between samples, reducing downtime and increasing throughput. Furthermore, while traditional methods demand large amounts of fluid, the sample requirement is less than 400 µL. Additionally, the system accommodates a broad viscosity range: 0.5 – 88 cSt and 1.5 – 330 cSt when using the A05 or B05 chip, respectively.



The reliability of the microVISC PRO Oil mode is backed by data. The table below shows the good agreement between kinematic viscosity obtained with microVISC PRO Oil vs. that shown in the certificates of analysis at 100 °C for multiple NIST-traceable oil standards.

	Kinematic Viscosity (cSt) at 100 °C		% Difference
	microVISC PRO Oil	Certificate of Analysis	
N2	0.9612	0.9363	2.7
N35	5.607	5.560	0.8
N140	18.89	18.25	3.5

