

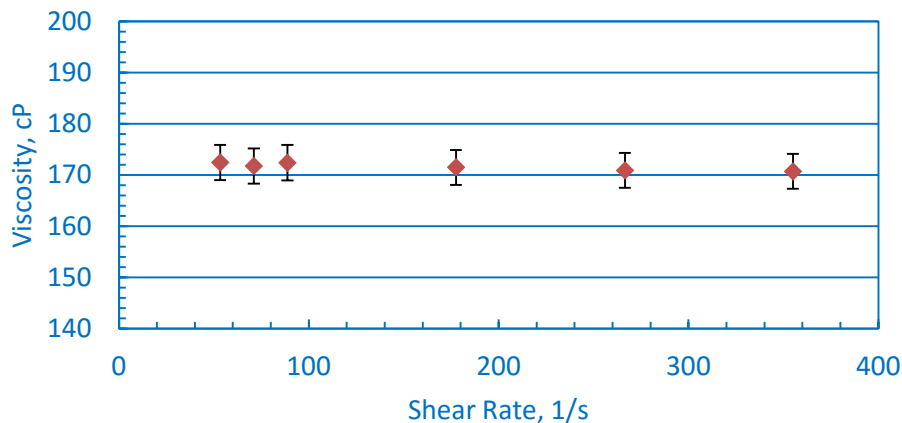
Repeatable Viscosity Measurements of High Concentration Biologics

One concern in biopharmaceutical formulations is the viscosity of high-concentration protein and mAb formulations. At high concentrations, these types of samples can easily reach 100-200 cP. Conventional viscometers struggle testing samples above 50 cP. In this Application Brief, we demonstrate the ability of VROC® initium to testing high viscosity samples with superior repeatability.

The test was conducted as follows:

1. 100 μ L of 90% Glycerol in water was loaded into an 11 mm vial (Wheaton)
2. The autosampler loaded 80 μ L of the sample into the VROC® initium unit
3. VROC® initium unit performed measurements on the sample at multiple shear rates, with three repeats at each of the shear rates.
4. VROC® initium performs self-cleaning at the end of the test with preset protocols.

Overall, the glycerol sample was used to perform **18** tests at **6** different shear rates. The Glycerol sample exhibited Newtonian behavior, with an average viscosity of 171P at an average temperature of 23.28 °C, with a relative standard deviation of 0.46%. Error bars below correspond with 2% accuracy.



If you have questions or need more information about this or other applications, please contact us:

Main Office — 1 925 866 3801

Information — info@RheoSense.com

Sales — Sales@RheoSense.com

