

Usually, when anyone says their software eliminates the need for Excel, it is met with a groan and an eye roll. However, Clariti truly does minimize the need to work with third party software by collecting data, processing in bulk, and graphing the results in fully customizable and intuitive charts.

For those of you who still want to use your favorite graphic programs, we can easily export all the processed data with one click!



All in one! Data Analysis

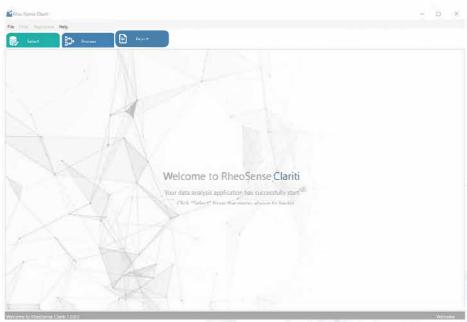


Injectability



Particle Sizing

Hydrodynamic Radius with Intrinsic Viscosity

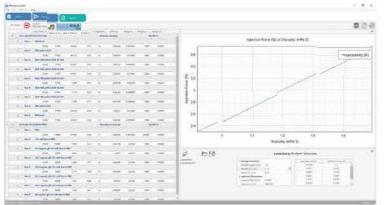


## Welcome to RheoSense Clariti™



## Syringeability/Injection Force

Determine injection forces before the final formulation is fixed.



●ften, by the time your product ends up in a syringe, there is little that can be done to change the formulation. Device screening can help, but avoid the tedium of measuring injection force with syringes. Frictional force of syringes is negligible compared to the hydrodynamic force of drug products. VR●C® initium will take any number of device configurations and provide a hydrodynamic force for each based on rheology at injection conditions.

Drug products are typically non-Newtonian. This means that the viscosity at lower shear rates (measured by traditional rheometers) will not predict the viscosity at higher shear rates (those experienced during the injection process). Often, concentration or potency is needlessly sacrificed for easier syringeability. Injections typically occur at ranges of 120,000 1/s - and viscosities can drop by up to 80% over that range. By comparison rotational instruments max out (for lower viscosity samples) around 3,000 1/s and the viscosity will hardly change at all over this range.



## Intrinsic Viscosity

Size proteins and multimers with an alternative to light scattering

Molecular sizing is critical characterization for any

formulation work. Typically, methods to find molecular size involve tedious chromatography methods and light scattering detectors. While these are effective tools, they are subject to limitations and have some inherent error. We work from the opposite direction and look at viscosity as it relates to hydrodynamic radius. With a few serial dilutions and a couple of clicks in the Clariti software, you can be on your way to obtaining reliable molecular size quickly. Because this is an orthogonal method to traditional techniques, it is an excellent way to

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confirm results and remove additional error from your data.



