

A shear rheometer measures viscosity and viscoelasticity of fluids, and solids



Parallel Plate



Cone and Plate



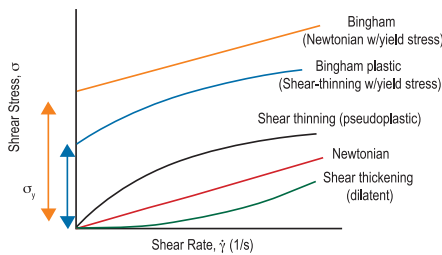
Concentric Cylinder



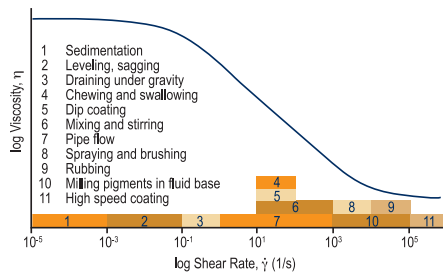
Torsion Rectangular

FLOW: Measure viscosity as a function of shear rate or stress, time & temperature

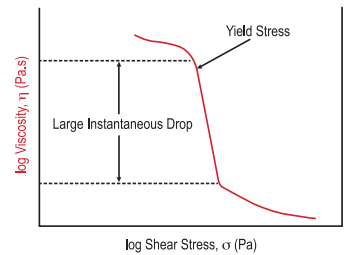
Characteristic Flow Diagrams



Generalized Flow Curve

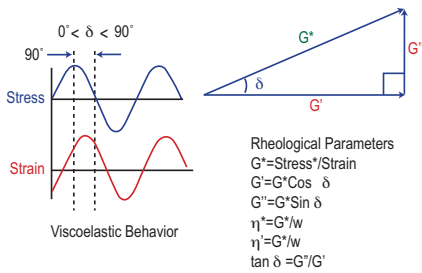


Yield Stress Measurement

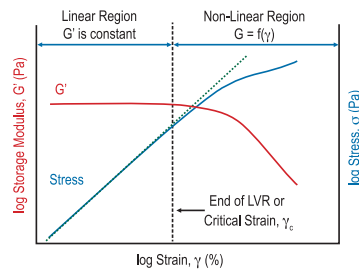


OSCILLATION: Measure viscoelastic properties such as G' , G'' and $\tan \delta$ with respect to time, temperature, frequency and stress/strain

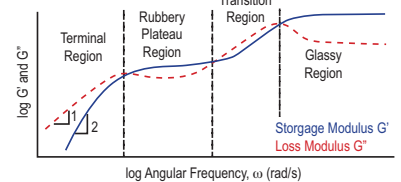
Viscoelastic Behavior and Parameters



Strain Sweep

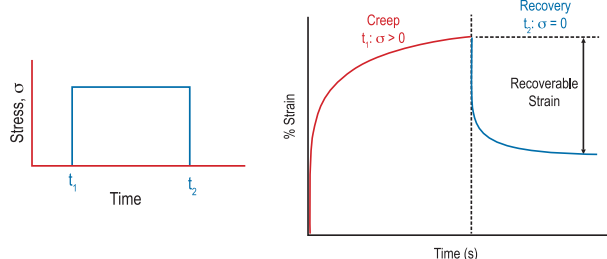


Frequency Sweep



STEP TRANSIENT: Creep and Stress Relaxation measure viscoelastic properties of compliance and relaxation modulus

Creep and Recovery



Stress Relaxation

