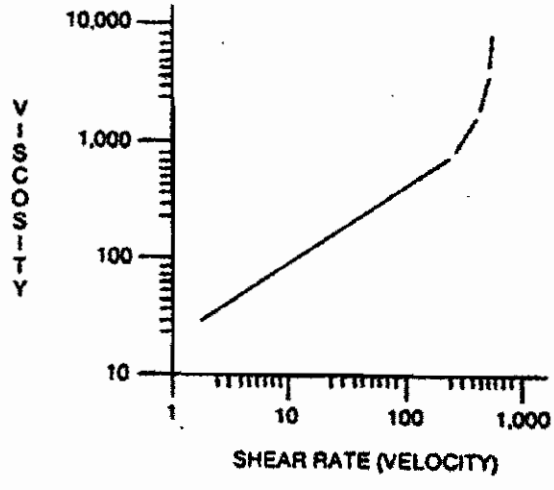
# VISCOUS FLUID BEHAVIOR CONTINUED

Type: Increasing Viscosity at Increasing Shear Rates.

## DILATANT

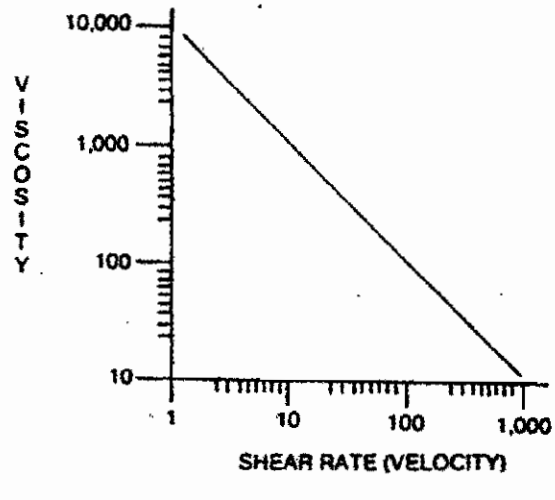
*DILATANT FLUIDS*
Viscosity increases as shear rate increases. This fluid type needs to be pumped at very conservative pump speeds since some pumps have areas of high shear which may cause the product to reach a sufficient viscosity to stall the drive or in extreme cases mechanically damage the pump.
Some fluids showing dilatent behavior are high solids concentrations of clays, oxides and granular or crystalline materials.

**Feldspar**
**Mica**
**Clay**
**Beach sand**
**Quicksand**
**Starch in water**




TYPE: Decreasing Viscosity at Increasing Shear Rates

## THIXOTROPIC

*THIXOTROPIC FLUIDS*
Along with the characteristic of the viscosity decreasing over a finite time as the sheer rate is constant, Thixotropic flow is also characterized by: Having a Yield Point; Plastic or pseudoplastic behavior; A tendency to rebuild viscosity or Yield Point on standing.

**Thixotropic - decreases viscosity over**
caulking compounds,
slurry mixes,
paints, inks,
shampoo.
lotions,