Summary

Properties of fluid such as density and viscosity are critical to understand the fluid flow. Measurement of viscosity and the role of this property on fluid property has been elaborated. The relationship between shear stress and shear rate has been discussed using viscosity. Newtonian and non-Newtonian classification of fluids based on the shear stress and shear rate relationship has been discussed. Viscosity measurement using viscometers has been covered using capillary or tube viscometers. Poiseuille and Rabinowitsch- Mooney equations were discussed which form the basis for the measurement of viscosity of the fluid. Finally the effect of temperature based on Arrhenius- equation has been detailed for fluid flow.