

Types of fluids

(1) Ideal fluid → A fluid which is incompressible and is having no viscosity. is known as ideal fluid.

(2) Real fluid :- A fluid which possesses viscosity is known as real fluids

All fluids in actual practice are real fluids

(3) Newtonian fluid :- A real fluid in which the shear stress is directly proportional to the rate of shear strain is known as Newtonian fluid

Ex:- water, alcohol, kerosene etc

(4) Non Newtonian fluid

A real fluid in which the shear stress is not proportional to the rate of shear strain
Ex:- Butter, jam, ghee etc

(5) Ideal plastic fluid : A fluid in which shear stress is more than the yield value ad shear stress is proportional to the rate of shear strain is known as ideal plastic fluids or Bingham plastic fluids

Bingham - plastic :- Resist a small shear stress but flow easily under larger shear stresses

Ex:- tooth paste, jellies, ad some slurries.

