

### Answer on Question #41058, Physics, Mechanics | Kinematics | Dynamics

Which of these is correct about viscosity?

It increases with increase in temperature

It varies with the relative velocity of the surfaces in contact

It is does not vary from one liquid to another

Both viscous force and upthrust act upwards.

#### Solution

It increases with increase in temperature. **False:** the liquid viscosity tends to decrease as its temperature increases.

It varies with the relative velocity of the surfaces in contact. **True.** The viscosity is proportional to the relative velocity between the two surfaces.

It is does not vary from one liquid to another. **False:** liquids have different viscosities. Motor oil, for example, has high viscosity whereas gasoline has low viscosity.

Both viscous force and upthrust act upwards. **False:** upthrust acts vertically upwards on the body, but the viscous force acts on the object in the direction in which the fluid is moving relative to it.

**Answer: It varies with the relative velocity of the surfaces in contact.**