

# FRICTION

**Friction force is of two types.**

- (a) Kinetic                      (b) Static

**KINETIC FRICTION :**  $f_k = \mu_k N$

The proportionality constant  $\mu_k$  is called the coefficient of kinetic friction and its value depends on the nature of the two surfaces in contact.

**STATIC FRICTION :**

It exists between the two surfaces when there is tendency of relative motion but no relative motion along the two contact surfaces.

**This means static friction is a variable and self adjusting force. However it has a maximum value called limiting friction.**

$$f_{\max} = \mu_s N$$
$$0 \leq f_s \leq f_{\max}$$

