

Answer on Question#41290, Physics, Mechanics Question: If the coefficient of friction is 0.30, the horizontal force needed to pull a mass of 15 kg across a level board with constant velocity is

Solution. Equalibrium of forces (as speed is constant)

$$F_{friction} = F$$

$$\mu mg = F$$

$$F = 0.3 \cdot 15 \cdot 9.8 = 44.1 \text{ N}$$

Needed force is 44.1 N.