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Formula under elasticity of solids

Force= force constant (k)× extension in metres

Example: Calculate the force of a rubbery plastic material that was dragged and whose length increased by a factor of 0.5m and force constant is 20N/m provided that the material has not exceeded its elastic limit.

Solution

$$F = k \times e$$

$$F = 20 \times 0.5$$

$$F = 10 \text{ Newtons}$$