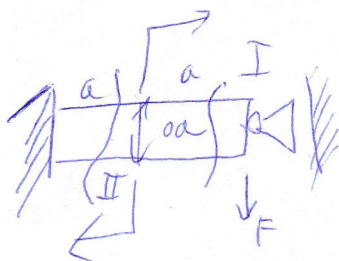


2



$$\Delta L = (2a) \cdot \Delta T \cdot \alpha$$

$$\frac{\Delta L}{L} = \frac{2a \cdot \Delta T \cdot \alpha}{L}$$

$$\sigma_{\text{TEHOTY}} = \epsilon \cdot E = \Delta T \cdot \alpha \cdot E$$

$$\Delta T = ?$$

$$\text{I } x < 0, a$$

$$M_{01} = F \cdot x$$

$$M_{k1} = 0$$

$$N = \Delta T \cdot \alpha \cdot E \cdot S$$

$$\text{II } x < 0, a$$

$$M_{02} = F \cdot (a+x)$$

$$M_{k2} = M_1$$

$$N = \Delta T \cdot \alpha \cdot E \cdot S$$

Vliv posuvajících sil na max napětí zafixování



CAST

$$\sigma = \frac{M}{S}$$

$$U = \frac{1}{2E} \int \sigma^2 dV = \frac{1}{2E} \int (E \cdot \Delta T \cdot \alpha)^2 dV$$

$$U = \frac{1}{2E} \int \left(\frac{E \cdot \Delta T \cdot \alpha \cdot S}{S} \right)^2 dV = \frac{1}{2E} \int \frac{E^2 \cdot \Delta T^2 \cdot \alpha^2 \cdot S^2}{S^2} dV$$

$$U = \frac{1}{2E} \cdot \frac{E^2 \cdot \Delta T^2 \cdot \alpha^2 \cdot S^2}{S^2} \cdot L = \frac{E \cdot \Delta T^2 \cdot \alpha^2 \cdot L}{2} + \frac{1}{4E} \int \frac{M}{S} dV$$