Dilatación Térmica

Dilatación Lineal

$$L = L_0 + aL_0\Delta t$$

$$\Delta L = aL_0\Delta t$$

$$a = \frac{\Delta L}{L_0\Delta T}$$

Dilatación lineal

$$a_L = \frac{1}{L}\left(\frac{dL}{dT}\right)_p = \left(\frac{dInL}{dT}\right)_p \approx \frac{1}{L} = \left(\frac{\Delta L}{\Delta T}\right)_p$$

ΔL = *Incremento de su integridad fisica*
ΔT = *Cambio de temperatura*

Dilatación Volumétrica

$$V = V_0 + \beta V_0\Delta t$$

$$\Delta V = \beta V_0\Delta t$$

$$\beta = 3\alpha$$

$$a_V \approx \frac{1}{V(T)}\frac{\Delta V(T)}{\Delta T} = d\frac{dInV(T)}{dT}$$

$$\Delta V = V_f - V_0$$

Dilatación de Área

$$A = A_0 + yA_0\Delta t$$

$$\Delta A = yA_0\Delta t$$

$$\gamma = 2\alpha$$