Young modulus – thermal expansion @model

(1) $$E \cdot \alpha_T^2 = k_{\alpha E} = \text{const}$$

where

E	Young modulus
α_T	thermal expansion coefficient
$k_{\alpha E}$	universal constant

Typical value for rocks is $k_{\alpha E} = 15\,\text{Pa}/K^2$

See Also

Physics / Mechanics / Continuum mechanics / Young modulus (E)

Reference

R.E. Barker. J. Appl. Phys.34,1, 107(1963).