

Isothermal Compressibility = T

[Compressibility](#) under [isothermal](#) (constant [temperature](#) $T = \text{const}$) compression/decompression [thermodynamic process](#):

$$(1) \quad c_T = \frac{1}{\rho} \left(\frac{\partial \rho}{\partial p} \right)_T = -\frac{1}{V_m} \left(\frac{\partial V_m}{\partial p} \right)_T$$

[Isothermal Compressibility](#) is [material property](#) and inverse to [Isothermal bulk modulus](#) K_T :

$$(2) \quad \beta_T = \frac{1}{K_T}$$

See also

[Physics](#) / [Mechanics](#) / [Continuum mechanics](#) / [Continuum body](#) / [Compressibility](#)

[[Isothermal bulk modulus](#)]