

Shear modulus = G

[@wikipedia](#)

[Medium](#) response to shear stress and quantified as proportionality between shear stress τ_{xy} and shear strain ϵ_{xy} in a certain plane $\{xy\}$:

$$(1) \qquad G = \frac{\tau_{xy}}{\epsilon_{xy}}$$

For isotropic materials it is related to [Young modulus \(E\)](#) and [Poisson's ratio \(\$\nu\$ \)](#) as:

$$(2) \qquad G = \frac{E}{3(2 + \nu)}$$

See also

[Physics](#) / [Mechanics](#) / [Continuum mechanics](#) / [Continuum Body](#) / [Deformation](#)

[[Solid Mechanics](#)] [[Fluid Mechanics](#)]

[[Compressibility](#)] [[Young modulus \(E\)](#)] [[Poisson's ratio \(\$\nu\$ \)](#)] [[Bulk modulus](#)]