

Permeability (absolute)

Air-saturated [formation permeability](#) to air sweep with [Klinkenberg correction](#) or [Knudsen correction](#):

(1)
$$k_a = k_{air}$$

There is a statistical correlation between [absolute permeability](#) k_a and [formation porosity](#) ϕ which can be approximated by various [permeability-porosity models](#).

[Absolute permeability](#) stays constant for small [pressure](#) variations but in a wide range of [pressure](#) variations the dependence on ambient [pressure](#) $c_r(p)$ can not be neglected and should be tabulated from laboratory core tests or estimated from [permeability-pressure correlations](#).

See also

[Petroleum Industry / Upstream / Subsurface E&P Disciplines / Petrophysics](#)

[[Permeability](#)] [[Relative permeability](#)] [[Absolute permeability @model](#)] [[Basic reservoir properties](#)]