

Dimensionless time (pressure diffusion)

In [SI unit system](#):

(1)
$$t_D = \frac{\chi \cdot t}{r_e^2}$$

where

t	transition time
χ	pressure diffusivity
r_e	characteristic radius of reservoir flow inflow or outflow area (usually a well radius or half-size of oil reservoir)

In [Oil Field unit system](#):

(2)
$$t_D = 6.328 \cdot 10^{-3} \cdot \frac{\chi \cdot t}{r_e^2}$$

where

t	r_e	χ
days	ft	(md·psi)/cp

See Also

[Petroleum Industry](#) / [Upstream](#) / [Subsurface E&P Disciplines](#) / [Well Testing](#) / [Pressure Testing](#) / [Pressure Diffusion](#)

[[Well & Reservoir Surveillance](#)] [[Pressure diffusion @model](#)]