Properties of selected fluids at 20°C = 293K and 1 bar = 10^5 N/m^2

Fluid	Density ρ (kg/m^3)	Viscosity μ (kg/m s)	Thermal conductivity k (W/m K)	Coefficient of thermal expansion β (K^{-1})	Isothermal Compressibility κ_T (m^2/N)	Specific heat at constant pressure c_p (J/kgK)
Helium	0.164*	1.92×10^{-5}	0.150	3.41×10^{-3} *	1.00×10^{-5} *	5.21×10^{3} *
Air	1.19*	1.98×10^{-5}	0.0262	3.41×10^{-3} *	1.00×10^{-5} *	1.00×10^{3} *
Water	1.00×10^{3}	1.00×10^{-3}	0.597	1.8×10^{-4}	4.6×10^{-10}	4.18×10^{3}
Glycerin ($C_3H_8O_3$)	1.26×10^{3}	1.49	0.286	5.0×10^{-4}	3.7×10^{-10}	2.39×10^{3}
Mercury	1.36×10^{4}	1.55×10^{-3}	8.69	1.82×10^{-4}	0.40×10^{-10}	1.39×10^{2}

* Calculated from ideal gas relationships.

The isothermal compressibility κ_T and the coefficient of thermal expansion β are defined by the equation

$$\frac{d\rho}{\rho} = \kappa_T dp - \beta dT \ .$$

Surface tension at a clean air-water interface at 20°C : σ = 0.073 N/m

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