

Fluids Fact Sheet

2/5/07

Pressure

1 Pascal = 1 Newton/m².

1 atm. = 101.3 kPa = 1.013 bar = 760 mm Hg (760 Torr) = 14.7 lb/in².

Some Densities

Material	Density in kg/m ³
Air at 760 mm, 0°C (STP)	1.29
Air at 760 mm, 100°C	0.944
Hydrogen (STP)	0.090
Helium (STP)	0.179
Water	1000
Sea Water	1025
Olive Oil	800 - 920
Mercury	13600
Aluminum	2700
Iron	7860
Silver	10500
Gold	19300

Some Viscosities: Liquids

Fluid	Viscosity in mPa.s
Water at 0°C	1.79
Water at 20°C	1.005
Water at 100°C	0.28
Glycerin at 0°C	12070
Glycerin at 20°C	1410
Glycerin at 30°C	612
Glycerin at 100°C	14.8
Mercury at 20°C	1.55
Mercury at 100°C	1.27
Motor Oil SAE 30	200
Motor Oil SAE 60	1000
Ketchup	50,000

Some Viscosities: Gases

Gas	Viscosity in 10^{-6} Pa.s
Air at 0°C	17.09
Air at 20°C	18.08
Air at 100°C	21.30
Hydrogen at 0°C	8.4
Helium at 0°C	18.6
Xenon at 0°C	21.2