

# Technical Reference – Conversion Formulas

## ■ Conversion Formulas

acres	=	ft <sup>2</sup> x 43,560
bar (atmospheres)	=	PSIG x 14.504
Centipoises	=	Centistokes x density
Centistokes	=	Centipoises x 1/density
cm of Hg	=	bar (atmospheres) x 76.0
cm of Hg	=	gm/cm <sup>2</sup> x 0.07356
cm of Hg	=	lb/in <sup>2</sup> x 5.1715
cm of Hg	=	lb/ft <sup>2</sup> x 0.035913
cm/sec <sup>2</sup>	=	gravity x 980.665
cm <sup>2</sup>	=	ft <sup>2</sup> x 929.0
cm <sup>3</sup>	=	ft <sup>3</sup> x 28,317
cm <sup>3</sup>	=	in <sup>3</sup> x 16.387
cm <sup>3</sup>	=	gal (USA liq) x 3785.43
cm <sup>3</sup>	=	qt (USA liq) x 1000.03
cm <sup>3</sup>	=	liter x 946.358
cm <sup>3</sup> /sec	=	ft <sup>3</sup> /min x 472.0
°C	=	(°F - 32) ÷ 1.8
°F	=	(°C x 1.8) + 32
ft	=	m x 3.281
ft <sup>2</sup>	=	acre x 0.000023
ft <sup>2</sup>	=	m <sup>2</sup> x 10.764
ft <sup>3</sup>	=	m <sup>3</sup> x 35.314
ft <sup>3</sup>	=	gal (USA liq) x 0.13368
ft <sup>3</sup>	=	liter x 0.03532
ft/sec	=	m/sec x 3.2808
ft/sec <sup>2</sup>	=	gravity (sea level) x 32.174
ft/sec <sup>2</sup>	=	m/sec <sup>2</sup> x 3.2808
ft <sup>3</sup> /sec	=	gal (USA liq)/min x 0.002228
ft <sup>3</sup> /sec	=	liter/min x 0.000589
ft/min	=	cm/sec x 1.9685
ft <sup>3</sup> /min	=	m <sup>3</sup> /sec x 2118.9
ft <sup>3</sup> /min	=	gal (USA liq)/sec x 8.0192
gal (Imperial liq)	=	gal (USA liq) x 0.83268
gal (USA liq)	=	barrel (USA petroleum) x 42
gal (USA liq)	=	ft <sup>3</sup> x 7.4805
gal (USA liq)	=	m <sup>3</sup> x 264.173
gal (USA liq)	=	yd <sup>3</sup> x 202.2
gal (USA liq)	=	gal (Imperial liq) x 1.2010
gal (USA liq)	=	liter x 0.2642
gal (USA liq)/sec	=	liter/min x 0.004403
gal (USA liq)/min	=	ft <sup>3</sup> /sec x 448.83
gal (USA liq)/min	=	m <sup>3</sup> /hr x 4.4029
gravity	=	cm/sec <sup>2</sup> x 0.03108
gm	=	lb x 453.5924
gm/cm-sec	=	Centipoises x 0.01
gm/cm <sup>3</sup>	=	lb/ft <sup>3</sup> x 0.016018

gm/cm <sup>3</sup>	=	lb/in <sup>3</sup> x 27.680
gm/cm <sup>3</sup>	=	lb/gal x 0.119826
in	=	cm x 0.3937
in <sup>2</sup>	=	cm <sup>2</sup> x 0.155
in <sup>3</sup>	=	cm <sup>3</sup> x 0.061023
in <sup>3</sup>	=	gal (USA liq) x 231.0
in <sup>3</sup>	=	liter x 61.03
in of Hg @ 32°F	=	bar (atmosphere) x 29.921
in of Hg @ 32°F	=	lb/in <sup>2</sup> x 2.0360
in of Hg @ 32°F	=	in of H <sub>2</sub> O @ 4°C x 0.07355
in/°F	=	cm/°C x 0.21872
kg	=	lb x 0.45359
kg-cal/m <sup>2</sup>	=	BTU/ ft <sup>2</sup> x 2.712
kg/liter	=	lb/gal (USA liq) x 0.11983
kg/mm	=	lb/ft x 1.488
kg/cm <sup>2</sup>	=	lb/in <sup>2</sup> x 0.0703
kg/m <sup>2</sup>	=	lb/ft <sup>2</sup> x 4.8824
kg/m <sup>3</sup>	=	lb/ft <sup>3</sup> x 3.60
lb	=	kg x 2.2046
lb/in	=	gm/cm x 0.0056
lb/in <sup>3</sup>	=	gm/cm <sup>3</sup> x 0.036127
lb/ft <sup>3</sup>	=	gm/cm <sup>3</sup> x 62.428
lb/ft <sup>3</sup>	=	lb/gal x 7.48
lb/sec-ft	=	Centipoises x 0.000672
lb/hr-ft	=	Centipoises x 2.42
lb/gal (USA,liq)	=	kg/liter x 8.3452
lb/gal (USA liq)	=	lb/ft <sup>3</sup> x 0.1337
lb/gal (USA liq)	=	lb/in <sup>3</sup> x 231
liter	=	ft <sup>3</sup> x 28.316
liter	=	in <sup>3</sup> x 0.01639
liter	=	m <sup>3</sup> (gas) x 999.973
liter	=	gal (Imperial liq) x 4.546
liter	=	gal (USA liq) x 3.7853
liter/kg	=	ft <sup>3</sup> /lb x 62.4262
liter/sec	=	ft <sup>3</sup> /min x 0.47193
liter/sec	=	gal/min x 0.063088
liter/min	=	ft <sup>3</sup> /sec x 1698.963
liter/min	=	gal (USA liq.) /min x 3.785
m	=	ft x 0.3048
mm	=	in x 25.40
m <sup>3</sup>	=	gal (USA liq) x 0.003785
m <sup>3</sup>	=	liter x 0.001000
m <sup>3</sup> /hr	=	gal/min x 0.22712
m <sup>3</sup> /kg	=	ft <sup>3</sup> /lb x 0.062428
m <sup>3</sup> /sec	=	gal/min x 0.000063
m <sup>3</sup> /min	=	ft <sup>3</sup> /min x 0.02832
oz	=	gm x 0.035274