

## CONVERSION FACTORS

### Metric Units for Everyday Use

Metric  
Prefixes

mega – (M) means million  
kilo – (k) means thousand

centi – (c) means hundredth  
milli – (m) means thousandth  
micro – (μ) means millionth

Quantity	Imperial Unit	Metric Unit	Conversion Factors (approx)	
			Imperial to Metric	Metric to Imperial
LENGTH	inch (in)	Millimetre (mm or centimeter (cm))	1 in = 25.4 mm	1 cm = 0.394 in
	foot (ft)	centimetre or meter (m)	1 ft = 30.5 cm	1 m = 3.28 ft
	yard (yd)	metre (m)	1 yd = 0.914 m	1 m = 1.09 yd
	furlong (fur)	metre (m) or kilometer (km)	1 fur = 201 m	1 m = 4.97 fur
	mile	kilometre (km)	1 mile = 1.61 km	1 km = 0.621 mile
	(for navigation)	international nautical mile (n mile)	1 n mile = 1852m	
MASS	ounce (oz)	gram (g)	1 oz = 28.3 g	1 g = 0.0353 oz
	pound (lb)	gram (g) or kilogram (kg)	1 lb = 454 g	1kg = 2.20 lb
	stone	kilogram (kg)	1 stone = 6.35 kg	1kg = 0.157 stone
	ton	sp??tonne (t) = 1000kg	1 ton = 1.02 t	1 t = 0.981 ton tonne (t) = 2204 lbs
AREA	square inch (in <sup>2</sup> )	Square centimeter (cm <sup>2</sup> )	1 in <sup>2</sup> = 6.45 cm <sup>2</sup>	1 cm <sup>2</sup> = 0.155 in <sup>2</sup>
	square foot (ft <sup>2</sup> )	square centimeter (cm <sup>2</sup> ) or square metre (m <sup>2</sup> )	1 ft <sup>2</sup> = 929 cm <sup>2</sup>	1 m <sup>2</sup> = 10.8 ft <sup>2</sup>
	square yard (yd <sup>2</sup> )	square metre (m <sup>2</sup> )	1 yd <sup>2</sup> = 0.836 m <sup>2</sup>	1 m <sup>2</sup> = 1.20 yd <sup>2</sup>
	perch (p)	square metre (m <sup>2</sup> )	1 p = 25.3 m <sup>2</sup>	1 m <sup>2</sup> = 0.0395 p
	rood (rd)	hectare (ha)	1 rd = 0.101 ha	1 ha = 9.88 rd
	acre (ac)	hectare (ha)	1 ac = 0.405 ha	1 ha = 2.47 ac
	square mile	square kilometre (km <sup>2</sup> )	1 square mile = 2.59 km <sup>2</sup>	1 km <sup>2</sup> = 0.386 square mile
VOLUME	cubic inch (in <sup>3</sup> )	cubic centimeter (cm <sup>3</sup> )	1 in <sup>3</sup> = 16.4 cm <sup>3</sup>	1 cm <sup>3</sup> = 0.0610 in <sup>3</sup>
	cubic foot (ft <sup>3</sup> )	cubic metre (m <sup>3</sup> )	1 ft <sup>3</sup> = 0.0283 m <sup>3</sup>	1 m <sup>3</sup> = 35.3 ft <sup>3</sup>
	cubic yard (yd <sup>3</sup> )	cubic metre m <sup>3</sup> )	1 yd <sup>3</sup> = 0.765 m <sup>3</sup>	1 m <sup>3</sup> = 1.31 yd <sup>3</sup>
	bushel (bus)	cubic metre (m <sup>3</sup> )	1 bus = 0.0364 m <sup>3</sup>	1 m <sup>3</sup> = 27.5 bus
VOLUME (liquids)	fluid ounce (fl oz)	milliliter (ml)	1 fl oz = 28.4 ml	1 ml = 0.0352 fl oz
	pint (pt)	milliliter (ml) or litre (l)	1 pt = 568 ml	1 litre = 1.76 pt
	gallon (gal)	litre (l) or cubic metre (m <sup>3</sup> )	1 gal = 4.55 l	1 m <sup>3</sup> = 220 gal
	acre foot	cubic metre (m <sup>3</sup> ) or megalitre (Ml)	1 acre foot = 1230 m <sup>3</sup> or 1.23 Ml	1 Ml = 0.811 acre foot
		1 m <sup>3</sup> = 1000 l	1m <sup>3</sup> /h = 0.59 cfm	
FORCE	pound force (lbf)	newton (N)	1 lbf = 4.45 N	1 N + 0.225 lbf
	ton force (tonf)	kilonewton (kN)	1 tonf = 9.96 kN	1 kN = 0.100 tonf
PRESSURE	pound per square inch (psi)	kilopascal (kPa)	1 psi = 6.89 kPa	1 kPa = 0.145 psi
	atmosphere (atm)	kilopascal (kPa) or megapascal (MPa)	1 atm = 101kPa	1Mpa = 9.87 atm
	ton per square inch (ton/in <sup>2</sup> )	megapascal (MPa)	1 ton/in <sup>2</sup> = 15.4 MPa	1 MPA = 0.0647 ton/in <sup>2</sup>
	(for meteorology) inch of mercury (inHg)	millibar (mb)	1 inHg = 33.9 mb	1 mb = 0.0295 inHg 1 mb = 100Pa 1 psi = 2.31 feet head
		1 psi = 27° water = 2.1° Hg		
VELOCITY	mile per hour (mph)	kilometre per hour (km/h)	1 mph = 1.61 km/h	1 km/h = 0.621 mph
	(for navigation)	knot (kn)		1 kn = 1.85 km/h
TEMPERATURE	degree Fahrenheit (°F)	degree Celsius (°C)	°C = 5/9 (°F – 32)	°F = (9 x °C)÷5 + 32