

TECHNICAL CONVERSION FACTORS

Energy

FROM		TO		MULTIPLY BY
Joule	(J)	kilopond metre	(kpm)	0,1020
Joule	(J)	kilowatt hour	(kWh)	0,2778 x 10 ⁻⁶
Joule	(J)	foot pound weigt	(ftlbwgt)	0,7376
Joule	(J)	kilocalorie	(kcal)	0,2388 x 10 ⁻³
Joule	(J)	British Themal Unit	(BThU)	0,9479 x 10 ⁻³
kilopond meter	(kpm)	kilowatt hour	(kWh)	2,7233 x 10 ⁻⁶
kilopond meter	(kpm)	foot pound weigt	(ftlbwgt)	7,2307
kilopond meter	(kpm)	kilocalorie	(kcal)	2,3425 x 10 ⁻³
kilopond meter	(kpm)	British Themal Unit	(BThU)	9,2954 x 10 ⁻³
kilopond meter	(kpm)	Joule	(J)	9,8067
kilowatt hour	(kWh)	foot pound weigt	(ftlbwgt)	2,6553 x 10 ⁶
kilowatt hour	(kWh)	kilocalorie	(kcal)	859,85
kilowatt hour	(kWh)	British Themal Unit	(BThU)	3,4118 x 10 ⁻³
kilowatt hour	(kWh)	Joule	(J)	3,6000 x 10 ⁶
kilowatt hour	(kWh)	kilopond metre	(kpm)	0,3672 x 10 ⁶
foot pound weight	(ftlbwgt)	kilocalorie	(kcal)	0,3238 x 10 ⁻³
foot pound weight	(ftlbwgt)	British Themal Unit	(BThU)	1,2851 x 10 ⁻³
foot pound weight	(ftlbwgt)	Joule	(J)	1,3558
foot pound weight	(ftlbwgt)	kilopond metre	(kpm)	0,1383
foot pound weight	(ftlbwgt)	kilowatt hour	(kWh)	0,3766 x 10 ⁻⁶
kilocalorie	(kcal)	British Themal Unit	(BThU)	3,9683
kilocalorie	(kcal)	Joule	(J)	4186,8
kilocalorie	(kcal)	kilopond metre	(kpm)	426,89
kilocalorie	(kcal)	kilowatt hour	(kWh)	1,1630 x 10 ⁻³
kilocalorie	(kcal)	foot pound weigt	(ftlbwgt)	3088,3
British Themal Unit	(BThU)	Joule	(J)	1055,0
British Themal Unit	(BThU)	kilopond metre	(kpm)	107,58
British Themal Unit	(BThU)	kilowatt hour	(kWh)	293,10
British Themal Unit	(BThU)	foot pound weigt	(ftlbwgt)	778,0
British Themal Unit	(BThU)	kilocalorie	(kcal)	0,2520

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PRESSURE:

FROM	TO	MULTIPLY BY
Bar (Bar)	Mega Pascals (MPa)	0,1
Bar (Bar)	Pounds per sq inch (psi)	14,5038
Mega Pascals (MPa)	Pounds per sq inch (psi)	145,038
Mega Pascals (MPa)	Bar (Bar)	10
Pounds per sq inch (psi)	Bar (Bar)	0,068947
Pounds per sq inch (psi)	Mega Pascals (MPa)	6,8947 x 10 ⁻³

STRESS:

FROM	TO	MULTIPLY BY
Newton/sq mm. (N/mm ²)	Thousand of pounds/sq i (ksi)	0,1450
Newton/sq mm. (N/mm ²)	Tons per sq inch (ton/sq in)	0,06475
Thousand of pounds/sq i (ksi)	Tons per sq inch (ton/sq in)	0,4464
Thousand of pounds/sq i (ksi)	Newtons/sq mm N/mm ² (N/mm ²)	6,8947
Tons per sq inch (ton/sq in)	Newtons/sq mm N/mm ² (N/mm ²)	15,4443
Tons per sq inch (ton/sq in)	Thousand of pounds/sq i (ksi)	2,240
Newton/sq mm. (N/mm ²)	Mega Pascals (MPa)	1

TEMPERATURE:

FROM	TO	FORMULA
Celsius (°C)	Fahrenheit (°F)	multiply by 9/5 and add 32
Celsius (°C)	Kelvin (°K)	add 273,15
Kelvin (°K)	Fahrenheit (°F)	multiply by 9/5 and subtract 459,67
Fahrenheit (°F)	Celsius (°C)	subtract 32 and multiply by 5/9
Kelvin (°K)	Celsius (°C)	Subtract 273,15
Fahrenheit (°F)	Kelvin (°K)	multiply by 5/9 and add 255,37

FORCE:

FROM	TO	MULTIPLY BY
Newtons (N)	kilopond (kp)	0,1020
Newtons (N)	pound weight (lbwgt)	0,2248
Kilopond (kp)	pound weight (lbwgt)	2,2046
Kilopond (kp)	Newtons (N)	9,8067
pound weight (lbwgt)	Newtons (N)	4,4482
pound weight (lbwgt)	kilopond (kp)	0,4536

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LENGTH

FROM METRIC	TO IMPERIAL	MULTIPLY BY
micron (μm)	milliinch (mil)	0.03937
millimeter (mm.)	inch (in)	0.03937
meter (m)	foot (ft)	3.2808
meter (m)	yard (yd)	1.0963
meter (m)	chain	0.1491
meter (m)	furlong	0.0050
meter (m)	fathom	0.5468
kilometer (km)	mile	0.6214

FROM IMPERIAL	TO METRIC	MULTIPLY BY
milliinch (mil)	micron (μm)	25.40
inch (in)	millimeter (mm)	25.4000
foot (ft)	meter (m)	0.3048
yard (yd)	meter (m)	0.9144
chain	meter (m)	20.1168
furlong	meter (m)	201.168
fathom	meter (m)	1.8288
mile	kilometer (km)	1.6093

AREA

FROM METRIC	TO IMPERIAL	MULTIPLY BY
sq millimeter (mm ²)	sq inch (sq in)	0.0015
sq centimeter (cm ²)	sq inch (sq in)	0.1550
sq meter (m ²)	sq foot (sq ft)	10.7636
sq meter (m ²)	sq yard (sq yd)	1.1960
sq meter (m ²)	acre	0.0002
sq kilometer (km ²)	sq mile	0.3861

FROM IMPERIAL	TO METRIC	MULTIPLY BY
sq inch (sq in)	sq millimeter (mm ²)	645.1600
sq inch (sq in)	sq centimeter (cm ²)	6.4516
sq foot (sq ft)	sq meter (m ²)	0.0929
sq yard (sq yd)	sq meter (m ²)	0.8361
acre	sq meter (m ²)	4046.86
sq mile	sq kilometer (km ²)	2.5898

VOLUME

FROM METRIC	TO IMPERIAL	MULTIPLY BY
cubic centimeter (cc ³)	cubic inch (cu in)	0.0610
cubic meter (m ³)	cubic foot (cu ft)	35.3134
cubic meter (m ³)	liter (l)	1000.0000
liter (l)	pint (pt)	1.7599
liter (l)	imperial gallon	0.2198
liter (l)	us gallon	0.2642
liter (l)	us barrel	0.0063
us barrel	us gallon	42.0000

FROM IMPERIAL	TO METRIC	MULTIPLY BY
cubic inch (cu in)	cubic centimeter (cc ³)	16.3871
cubic foot (cu ft)	cubic meter (m ³)	0.0283
liter (l)	cubic meter (m ³)	0.0010
pint (pt)	liter (l)	0.5682
imperial gallon	liter (l)	4.5460
us gallon	liter (l)	3.7854
us barrel	liter (l)	158.98
us gallon	us barrel	0.0238

WEIGHT

FROM METRIC	TO IMPERIAL	MULTIPLY BY
gram (g)	dram (dr)	0.5644
gram (g)	grain (gr)	15.4324
gram (g)	ounce (oz)	0.0353
gram (g)	pound (lb)	0.0022
kilogram (kg)	pound (lb)	2.2046
kilogram (kg)	hundredweight (cwt)	0.0197
metric ton (t)	kilogram (kg)	1000.0000
metric ton (t)	ton (t)	0.9842

FROM IMPERIAL	TO METRIC	MULTIPLY BY
dram (dr)	gram (g)	1.7718
grain (gr)	gram (g)	0.0648
ounce (oz)	gram (g)	28.3495
pound (lb)	gram (g)	453.5923
pound (lb)	kilogram (kg)	0.4536
hundredweight (cwt)	kilogram (kg)	50.8023
kilogram (kg)	metric ton (t)	0.0010
ton (t)	metric ton (t)	1.0161