

# Appendix C: Conversion Charts and Tables



## Tabele konwersji i czynników

Długość	Å	CM	FT	IN	M	MICRON	mm	YD
Pomnożyć przez								
A	-----	$1 \times 10^{-8}$	$3.28 \times 10^{-9}$	$3.93 \times 10^{-9}$	$1 \times 10^{-10}$	$1 \times 10^{-4}$	$1 \times 10^{-7}$	$1.09 \times 10^{-10}$
CM	$1 \times 10^8$	-----	$3.28 \times 10^{-2}$	$3.94 \times 10^{-1}$	$1 \times 10^{-2}$	$1 \times 10^4$	10	$1.09 \times 10^{-2}$
FT	$3.04 \times 10^9$	$3.048 \times 10^1$	-----	$1.2 \times 10^1$	$3.04 \times 10^{-1}$	$3.04 \times 10^5$	$3.04 \times 10^2$	$3.33 \times 10^{-1}$
IN	$2.54 \times 10^8$	$2.54 \times 10^0$	$8.33 \times 10^{-2}$	-----	$2.54 \times 10^2$	$2.54 \times 10^4$	$2.54 \times 10^1$	$2.77 \times 10^2$
M	$1 \times 10^{10}$	$1 \times 10^2$	$3.281 \times 10^0$	$3.93 \times 10^1$	-----	$1 \times 10^6$	$1 \times 10^3$	$1.09 \times 10^0$
MICRON	$1 \times 10^4$	$1 \times 10^{-4}$	$3.28 \times 10^{-6}$	$3.93 \times 10^{-5}$	$1 \times 10^{-6}$	-----	$1 \times 10^{-3}$	$1.09 \times 10^{-6}$
mm	$1 \times 10^7$	$1 \times 10^{-3}$	$3.28 \times 10^{-3}$	$3.93 \times 10^{-2}$	$1 \times 10^{-2}$	$1 \times 10^3$	-----	$1.09 \times 10^{-3}$
YD	$9.14 \times 10^9$	$9.14 \times 10^1$	$3 \times 10^0$	$3.6 \times 10^1$	$9.14 \times 10^{-1}$	$9.14 \times 10^5$	$9.14 \times 10^2$	-----

Przepływ	CM3/MIN	CM3/SEC	FT3/HR	FT3/MIN	M3/HR	M3/MIN	L/HR	L/MIN
Pomnożyć przez								
CM3/MIN	-----	$1.66 \times 10^{-2}$	$2.12 \times 10^{-3}$	$3.53 \times 10^{-5}$	$6 \times 10^{-5}$	$1 \times 10^{-6}$	$6.0 \times 10^{-2}$	$1 \times 10^{-3}$
CM3/SEC	$6 \times 10^1$	-----	$1.27 \times 10^{-1}$	$2.12 \times 10^{-3}$	$3.6 \times 10^{-3}$	$6 \times 10^{-5}$	$3.6 \times 10^0$	$6 \times 10^{-2}$
FT3/HR	$4.72 \times 10^2$	$7.87 \times 10^1$	-----	$1.67 \times 10^{-2}$	$2.83 \times 10^{-2}$	$4.72 \times 10^{-4}$	$2.83 \times 10^1$	$4.72 \times 10^{-1}$
FT3/MIN	$2.83 \times 10^4$	$4.72 \times 10^2$	$6.0 \times 10^1$	-----	$1.7 \times 10^1$	$2.83 \times 10^{-2}$	$1.7 \times 10^{-2}$	$2.83 \times 10^1$
M3/HR	$1.67 \times 10^4$	$2.78 \times 10^2$	$3.53 \times 10^1$	$5.89 \times 10^{-2}$	-----	$1.67 \times 10^{-2}$	$1 \times 10^3$	$1.67 \times 10^1$
M3/MIN	$1 \times 10^6$	$1.67 \times 10^4$	$2.12 \times 10^3$	$3.53 \times 10^1$	$6.0 \times 10^1$	-----	$6.0 \times 10^4$	$1 \times 10^3$
L/HR	$1.67 \times 10^1$	$2.78 \times 10^{-1}$	$3.53 \times 10^{-2}$	$5.89 \times 10^{-4}$	$1 \times 10^{-3}$	$1.67 \times 10^{-5}$	-----	$1.67 \times 10^{-2}$
L/MIN	$1 \times 10^3$	$1.67 \times 10^1$	$2.12 \times 10^0$	$3.53 \times 10^{-2}$	$6.0 \times 10^{-2}$	$1 \times 10^{-3}$	$6.0 \times 10^1$	-----

Ciśnienie	ATM	BAR	FT OF H2O	IN OF HG	IN OF H2O	KG/CM2	kPa	mm OF HG	PSI
Pomnożyć przez									
ATM	-----	1.013	33.932	29.921	407.183	1.033	101.317	760	14.696
BAR	0.987	-----	33.488	29.53	401.859	1.019	100	750.062	14.504
FT. OF H2O	0.029	0.029	-----	0.883	12	0.03	2.989	22.419	0.433
IN OF HG	0.033	0.034	1.134	-----	13.6	0.035	3.377	25.4	0.491
IN OF H2O	0.002	0.002	0.083	0.074	-----	0.003	0.025	1.868	0.036
KG/CM2	0.968	0.981	32.808	28.959	393.701	-----	98.039	735.559	14.223
kPa	0.009	0.01	0.335	0.296	4.015	0.01	-----	7.501	0.145
mm OF HG	0.001	0.001	0.045	0.039	0.535	0.001	0.133	-----	0.019
PSI	0.06805	0.06895	2.3089	2.036	27.7085	0.07031	6.89465	51.175	-----

Waga	GM	KG	MG	OZ	LBS	TON
Pomnożyć przez						
GM	-----	0.001	1000	0.035	0.002	$1.1 \times 10^{-6}$
KG	1000	-----	$1 \times 10^6$	$3.53 \times 10^1$	2.205	0.001
MG	0.001	$1 \times 10^{-6}$	-----	$3.53 \times 10^{-4}$	$2.205 \times 10^{-6}$	$1.1 \times 10^{-9}$
OZ	$2.83 \times 10^1$	$2.83 \times 10^{-2}$	$2.83 \times 10^4$	-----	$6.25 \times 10^{-2}$	$3.13 \times 10^{-5}$
LBS	$4.54 \times 10^2$	$4.54 \times 10^1$	$4.54 \times 10^5$	16	-----	$5.0 \times 10^{-4}$
TON	$9.07 \times 10^5$	$9.07 \times 10^2$	$9.07 \times 10^8$	$3.2 \times 10^4$	$2.0 \times 10^3$	-----

Objętość	CM3 (ML)	FT3	IN3	M3	US GAL.	L
Pomnożyć przez						
CM3 (ML)	-----	$3.53 \times 10^{-5}$	$6.10 \times 10^{-2}$	$1 \times 10^{-6}$	$2.56 \times 10^{-3}$	$1 \times 10^{-3}$
FT3	$2.83 \times 10^4$	-----	$1.73 \times 10^3$	$2.83 \times 10^{-2}$	7.48	28.32
IN3	1.64	$5.79 \times 10^{-6}$	-----	$1.64 \times 10^{-5}$	$4.33 \times 10^{-3}$	$1.64 \times 10^{-2}$
M3	$1 \times 10^6$	3.53	$6.10 \times 10^4$	-----	$2.64 \times 10^2$	$1 \times 10^3$
US GAL.	$3.79 \times 10^3$	$1.34 \times 10^{-1}$	$2.31 \times 10^2$	$3.79 \times 10^{-3}$	-----	3.79
L	$1 \times 10^3$	$3.54 \times 10^{-2}$	$6.10 \times 10^1$	$1 \times 10^{-3}$	$2.64 \times 10^{-1}$	-----

Temperatura	°C	°F	°K	°R
Pomnożyć przez				
°C + 17.78	-----	1.8	-----	-----
°C + 273.16	-----	-----	1	-----
°F - 32	0.55556	-----	-----	-----
°F + 459.72	-----	-----	-----	1
°K + 273.16	1	-----	-----	-----
°R - 459.72	-----	1	-----	-----

Gęstość	GMS/CM <sup>3</sup>	KG/CM <sup>3</sup>	LBS/FT <sup>3</sup>	LBS/IN <sup>3</sup>	LBS/US GAL.
Pomnożyć przez					
GMS/CM <sup>3</sup>	-----	1000	$6.24 \times 10^1$	$3.61 \times 10^{-2}$	8.35
KG/CM <sup>3</sup>	$1 \times 10^{-3}$	-----	$6.24 \times 10^{-2}$	$3.61 \times 10^{-3}$	$8.35 \times 10^{-3}$
LBS/FT <sup>3</sup>	$1.60 \times 10^{-2}$	$1.60 \times 10^1$	-----	$3.61 \times 10^{-5}$	$1.33 \times 10^{-1}$
LBS/IN <sup>3</sup>	$2.77 \times 10^1$	$2.77 \times 10^4$	$1.73 \times 10^3$	-----	$2.31 \times 10^2$
LBS/US GAL.	$1.2 \times 10^{-1}$	$1.2 \times 10^2$	7.48	$4.33 \times 10^{-3}$	-----

Stężenie	
Stężenie	Odpowiednik
1,000,000 ppm	100%
100,000 ppm	10%
10,000 ppm	1%
1,000 ppm	0.10%
100 ppm	0.01%
10 ppm	0.00%
1 ppm	0.00%
1,000 ppb	1 ppm
100 ppb	0.1 ppm
10 ppb	0.001 ppm

Szczegółowy zapis			
Zapis	Odpowiednik	Zapis	Odpowiednik
$1 \times 10^{10}$	10,000,000,000	$1 \times 10^{-1}$	0.1
$1 \times 10^9$	1,000,000,000	$1 \times 10^{-2}$	0.01
$1 \times 10^8$	100,000,000	$1 \times 10^{-3}$	0.001
$1 \times 10^7$	10,000,000	$1 \times 10^{-4}$	0.0001
$1 \times 10^6$	1,000,000	$1 \times 10^{-5}$	0.00001
$1 \times 10^5$	100,000	$1 \times 10^{-6}$	0.000001
$1 \times 10^4$	10,000	$1 \times 10^{-7}$	0.000 0001
$1 \times 10^3$	1,000	$1 \times 10^{-8}$	0.000 00001
$1 \times 10^2$	100	$1 \times 10^{-9}$	0.000 000001
$1 \times 10^1$	10	$1 \times 10^{-10}$	0.000 0000001

Stałe fizyczne		
	Wartość	Jednostki
Liczba awagardo	$6.022 \times 10^{23}$	molecules/gm-mole
Prawo gazu stałego	1.98719	cal/(gm-mol)(°K)
	1.98719	Btu/(lbs-mole)(°R)
	82.0568	(cm <sup>3</sup> )(atm)/(gm-mole)(°K)
	0.082 0568	(L)(atm)/(gm-mole)(°K)
	10.7314	(ft <sup>3</sup> )(lb)/(in <sup>2</sup> )(lbs-mole)(°R)
	0.730228	(ft <sup>3</sup> )(atm)/(lbs-mole)(°R)