

Units conversion table

Length

cm	m	in	ft
1	0.01	0.3937	0.0328
100	1	39.371	3.2809
2.540	0.0254	1	0.0833
30.48	0.3048	12	1

Volume

ℓ	m³	ft³	UK gal	USA gal
1	0.001	0.03532	0.220	0.2642
1000	1	35.317	219.95	264.19
28.315	0.02832	1	6.2279	7.4806
4.5465	0.004547	0.1606	1	1.2011
3.7852	0.003785	0.1337	0.8325	1

Mass

g	kg	lb
1	0.001	0.002205
1000	1	2.2046
453.6	0.4536	1

Flow

ℓ/min	m³/h	UK gal/min	USA gal/min	ft³/h
1	0.06	0.2199	0.2642	2.119
16.667	1	3.6658	4.4032	35.317
4.5465	0.27279	1	1.2011	9.6342
3.7854	0.2271	0.8325	1	8.0208
28.315	0.02832	0.1038	0.1247	1

Reference : Conversion from m³/h(normal) to kg/h
 $W(\text{kg/h}) = (\text{m}^3/\text{h}) \times \text{molecular weight} \div 22.4$

Pressure

MPa	kgf/cm²	kPa	bar	lb/in²	atm	mHg	inHg	mH₂O	inH₂O
0.098067	1	98.0665	0.9807	14.223	0.9678	0.7355	28.96	10.00	394.0
0.001	0.010197	1	0.01	0.14504	0.00987	0.00750	0.2953	0.10197	4.0146
0.1	1.0197	100	1	14.50	0.9869	0.7500	29.55	10.21	401.8
0.006895	0.07031	6.8948	0.06895	1	0.06804	0.05171	2.0355	0.7037	27.70
0.101325	1.0333	101.325	1.0133	14.70	1	0.760	29.92	10.34	407.2
0.13332	1.3595	133.322	1.3333	19.34	1.316	1	39.37	13.61	535.67
0.003386	0.03453	3.3864	0.03386	0.4912	0.03342	0.02540	1	0.3456	13.61
0.009807	0.09991	9.8067	0.09798	1.421	0.0967	0.07349	2.893	1	39.37
0.000249	0.002538	0.2491	0.00249	0.03609	0.002456	0.001867	0.07349	0.0254	1

Temperature

$$^{\circ}\text{F} = 32 + \frac{9}{5} \times ^{\circ}\text{C} \quad ^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$$

Conver. to °C	-101	-84	-73	-68	-62	-57	-51	-46	-40	-34	-28.9	-23	-17.8	-15.0	-12.2	-9.4	-6.7	-3.9	-1.1	0	1.7	3.3	4.4	7.2	10.2	12.8	15.6
°C or °F	-150	-120	-100	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	5	10	15	20	25	30	32	35	38	40	45	50	55	60
Conver. to °F	-238	-184	-148	-130	-112	-94	-76	-58	-40	-22	-4	14	32	41.0	50.0	59.0	68.0	77.0	86.0	89.6	95.0	100.4	104.0	113.0	122.0	131.0	140.0

Conver. to °C	18.3	21.1	23.9	26.7	29.4	32.2	35.0	37.8	43	49	54	60	66	71	77	82	88	93	99	100	104	110	116	121	127	132	138
°C or °F	65	70	75	80	85	90	95	100	110	120	130	140	150	160	170	180	190	200	210	212	220	230	240	250	260	270	280
Conver. to °F	149.0	158.0	167.0	176.0	185.0	194.0	203.0	212.0	230	248	266	284	302	320	338	356	374	392	410	413.6	428	446	464	482	500	518	536

Conver. to °C	143	149	154	160	166	171	177	182	188	193	199	204	216	227	238	249	260
°C or °F	290	300	310	320	330	340	350	360	370	380	390	400	420	440	460	480	500
Conver. to °F	554	572	590	608	626	644	662	680	698	716	734	752	788	824	860	896	932

Area

cm²	in²	ft²
1	0.155	0.00107
6.4516	1	0.00694
929	144	1

Viscosity (Absolute Viscosity) • Kinetic Viscosity

Viscosity	Ps • S	P	cP
Absolute Viscosity	1	10	1000
	0.1	1	100
Kinetic Viscosity	m²/s	St	cSt
	1	10000	1 × 10⁶
	0.0001	1	100

$$\text{Kinetic Viscosity} = \frac{\text{Viscosity (Absolute Viscosity)}}{\text{Density}}$$

$$1\text{cP} = 1\text{mPa} \cdot \text{s}, 1\text{cSt} = 1\text{mm}^2/\text{s}$$

Force

N	dyn	kgf	lbf
1	100,000	0.101972	0.224809
0.00001	1	1.01972 × 10⁻⁶	2.24809 × 10⁻⁶
9.80665	980.665	1	2.20462
4.44822	444.822	0.453592	1

Work • Energy • Calory

J	kW • h	Kgf • m	kcal
1	2.77778 × 10⁻⁷	1.01972 × 10⁻¹	2.38883 × 10⁻⁴
3.600 × 10⁶	1	3.67098 × 10⁵	8.6000 × 10²
9.80665	2.72407 × 10⁻⁶	1	2.34270 × 10⁻³
4.18605 × 10³	1.16279 × 10⁻³	4.26858 × 10²	1