

# Mass Units

Source: <http://conversion.org/mass/>

Help:

≡exactly equal

≈approximately equal to

1E+12 =  $1 \times 10^{12}$

Unit Name	type	symbol	definition	in kg fraction	in kg	text
Nanogram	metric	ng	= $1 \times 10^{-12}$ kg		1E-12	
Microgram	metric	μg	= $1 \times 10^{-9}$ kg		0.000000001	
Milligram	metric	mg	= $1 \times 10^{-6}$ kg		0.000001	
Centigram	metric	cg	= $1 \times 10^{-5}$ kg		0.00001	
Gram	metric	g	= $1 \times 10^{-3}$ kg		0.001	
Decagram	metric	dag	= $10^{-2}$ kg		0.01	
Hectogram	metric	hg	= $10^{-1}$ kg		0.1	
Kilogram	metric	kg	≡ 1 kg		1	SI base unit. Mass of the prototype near Paris (≈ mass of 1 L of water)
tonne	metric	t	≡ 1000 kg		1000	= 1 megagram (Mg) or 1 metric ton (tonne)
atomic mass unit, unified		u; AMU	≈ $1.66053904 \times 10^{-27}$ kg		1.66054E-27	The unified atomic mass unit or dalton is a standard unit of mass that quantifies mass on an atomic or molecular scale (atomic mass).
atomic unit of mass, electron rest mass		me	≈ $9.10938356 \times 10^{-31}$ kg		9.10938E-31	
bag (coffee)			≡ 60 kg		60	
bag (Portland cement)			≡ 94 lb av		42.63768278	= 94 x 0.45359237 kg
barge			≡ 22 ½ short ton		20411.65665	= 20411.65665 kg
carat		kt	≡ 3 ⅙ gr	1.23117929/6000	0.000205197	= 19/6 grain = 205.1965483 mg
carat (metric)		ct	≡ 200 mg		0.0002	The carat (ct) is a unit of mass equal to 200 mg and is used for measuring gemstones and pearls (metric carat)
clove			≡ 8 lb av		3.62873896	= 8 x 0.45359237 kg
crith			≈ 89.9349 mg		8.99349E-05	
dalton		Da	≈ $1.66053904 \times 10^{-27}$ kg		1.66054E-27	Dalton (Da) or the unified atomic mass unit is a standard unit of mass that quantifies mass on an atomic or molecular scale (atomic mass).
dram (apothecary; troy)		dr t	≡ 60 gr		0.003887935	The dram (alternative British spelling drachm) was originally both a coin and a weight in ancient Greece. = 60 grain = 3.8879346 g
dram (avoirdupois)		dr av	≡ $27 \frac{11}{32}$ gr = 27.34375 gr		0.001771845	The dram was originally both a coin and a weight in ancient Greece. = 875/32 grain = 1.7718451953125 g

gamma		$\gamma$	$\equiv 1 \mu\text{g}$		0.000000001	$= 1 \mu\text{g}$
grain		gr	$\equiv \frac{1}{7000} \text{ lb av}$		6.47989E-05	The grain is the same in avoirdupois, troy, and apothecaries units of mass, $\equiv 64.79891 \text{ mg}$
grave		gv.	$\equiv 1 \text{ kg}$		1	grave was the original name of the kilogram
hundredweight (long)		long cwt or cwt	$\equiv 112 \text{ lb av}$		50.80234544	$= 112 \times 0.45359237 \text{ kg} = 50.80234544 \text{ kg}$
hundredweight (short); cental		sh cwt	$\equiv 100 \text{ lb av}$		45.359237	$= 100 \times 0.45359237 \text{ kg} = 45.359237 \text{ kg}$
kip		kip	$\equiv 1000 \text{ lb av}$		453.59237	A kip is a unit of force, uncommon, it is occasionally also considered a unit of weight, equal to 1000 pounds. $= 1000 \times 0.45359237 \text{ kg}$
mark			$\equiv 8 \text{ oz t}$		0.248827814	The Mark is originally a medieval weight or mass unit, which supplanted the pound weight as a precious metals and coinage weight from the 11th century $= 248.8278144 \text{ g}$
mite			$\equiv \frac{1}{20} \text{ gr}$		3.23995E-06	$= 1 \text{ grain} / 20 = 3.2399455 \text{ mg}$
mite (metric)			$\equiv \frac{1}{20} \text{ g}$		0.00005	$= 50 \text{ mg}$
ounce (apothecary; troy)		oz t	$\equiv \frac{1}{2} \text{ lb t}$		0.031103477	$= 31.1034768 \text{ g}$
ounce (avoirdupois)		oz av	$\equiv \frac{1}{16} \text{ lb}$	0.45359237/16	0.028349523	$= 0.45359237 \text{ kg} / 16 = 28.349523125 \text{ g}$
ounce (US food nutrition labelling)		oz	$\equiv 28 \text{ g}$		0.028	The ounce (abbreviated oz) is a unit of mass used in most British derived customary systems of measurement.
pennyweight		dwt; pwt	$\equiv \frac{1}{20} \text{ oz t}$		0.001555174	$= 1.55517384 \text{ g}$
point			$\equiv \frac{1}{100} \text{ ct}$		0.000002	$= 2 \text{ mg}$
pound (avoirdupois)		lb av	$\equiv 0.45359237 \text{ kg} =$ $7000 \text{ grains}$		0.45359237	By definition, $1 \text{ lb av} \equiv \text{exactly } 0.45359237 \text{ kg}$
pound (metric)			$\equiv 500 \text{ g}$		0.5	$= 500 \text{ g} = 0.5 \text{ kg}$
pound (troy)		lb t	$\equiv 5760 \text{ grains}$		0.373241722	$64.79891 \text{ g} \times 5760 = 0.3732417216 \text{ kg}$
quarter (imperial)			$\equiv \frac{1}{4} \text{ long cwt} = 2 \text{ st}$ $= 28 \text{ lb av}$		12.70058636	$28 \times 0.45359237 \text{ kg}$
quarter (informal)			$\equiv \frac{1}{4} \text{ short ton}$		226.796185	$= 907.18474 \text{ kg} / 4$
quarter, long (informal)			$\equiv \frac{1}{4} \text{ long ton}$		254.0117272	$= 1016.0469088 \text{ kg} / 4$
quintal (metric)		q	$\equiv 100 \text{ kg}$		100	
scruple (apothecary)		s ap	$\equiv 20 \text{ gr}$		0.001295978	$20 \times 0.06479891 \text{ g} = 1.2959782 \text{ g}$
sheet			$\equiv \frac{1}{700} \text{ lb av}$		0.000647989	$= 0.45359237 \text{ kg} / 700 = 647.9891 \text{ mg}$
slug; geepound; hyl		slug	$\equiv 1 \text{ g}_0 \times 1 \text{ lb av} \times 1$ $\text{s}^2/\text{ft}$	4.4482216152605/0.3048	14.59390294	$= 9.80665 \times 0.45359237 / 0.3048 \approx 14.593903 \text{ kg}$
stone		st	$\equiv 14 \text{ lb av}$		6.35029318	$= 14 \times 0.45359237 \text{ kg}$
ton, assay (long)		AT	$\equiv 1 \text{ mg} \times 1 \text{ long}$ $\text{ton} \div 1 \text{ oz t}$	49/1500	0.032666667	$= 32.(6) \text{ g}$
ton, assay (short)		AT	$\equiv 1 \text{ mg} \times 1 \text{ short}$ $\text{ton} \div 1 \text{ oz t}$	7/240	0.029166667	$= 29.1(6) \text{ g}$
ton, long		long tn or ton	$\equiv 2240 \text{ lb}$		1016.046909	$2240 \times 0.45359237 \text{ kg}$
ton, short		sh tn	$\equiv 2000 \text{ lb}$		907.18474	$2000 \times 0.45359237 \text{ kg}$

wey

≡ 252 lb = 18 st

114.3052772

252 0.45359237 kg. Some other variants may exist