

TABLES & CONVERSIONS

Linear Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
inches	25.4	millimeters
feet	0.3	meters
yards	0.91	meters
miles	1.61	kilometers

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
millimeters	0.039	inches
meters	3.28	feet
meters	1.09	yards
kilometers	0.62	miles

Mass Conversions

Approximate Conversions
To Metric Measures

When you Know	Multiply by	To Find
ounces	28.3	grams
pounds	0.45	kilograms
short tons	0.91	metric ton

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
grams	0.035	ounces
kilograms	2.2	pounds
metric ton	1.1	short tons

Area Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
sq. feet	0.093	sq. meters
sq. yards	0.84	sq. meters
sq. miles	2.6	sq. kilometers

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
sq. meters	10.76	sq. feet
sq. meters	1.2	sq. yards
sq. kilometers	0.38	sq. miles

Mass per Area Conversions

Approximate Conversions
To Metric Measures

When you Know	Multiply by	To Find
pound per square foot	4.88	kilogram per square meter

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
kilogram per square meter	0.205	pound per square foot

Area per Volume Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
square foot per gallon	0.025	square meter per liter

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
square meter per liter	40.75	square foot per gallon

Volume Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
cu. Inches	16	milliliters
fl. Ounces	29.6	milliliters
cups	0.24	liters
pints	0.47	liters
quarts	0.95	liters
gallons	3.79	liters
cu. feet	0.028	cu. meters
cu. yards	0.76	cu. meters
cu. feet	28.3	liters
cu. yards	764.5	liters

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
milliliters	0.06	cu. inches
milliliters	0.03	fl. ounces
liters	0.036	cu. ft.
liters	2.1	pints
liters	1.06	quarts
liters	0.26	gallons
cu. meters	35.3	cu. ft.
cu. meters	1.31	cu. yards

Mass per Volume Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
pound per cubic foot	16.02	kilogram per cubic meter
pound per cubic yard	0.59	kilogram per cubic meter
pound per gallon	0.12	kilogram per liter

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
kilogram per cubic meter	0.06	pound per cubic foot
kilogram per cubic meter	1.69	pound per cubic yard
kilogram per liter	8.34	pound per gallon

Volume per Mass & Volume per Volume Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
fluid oz. per cubic yard	38.68	milliliter per cubic meter
fluid oz. per 100 pounds	65.2	milliliter per 100 kilogram
gallon per cubic yard	4.95	liter per cubic meter

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
milliliter per cubic meter	0.026	fluid oz per cubic yard
milliliter per 100 kilogram	0.015	fluid oz per 100 pounds
liter per cubic meter	0.202	gallon per cubic yard

Force and Related Conversions

Approximate Conversions
To Metric Measures

When You Know	Multiply by	To Find
Dyne	0.0001	newton
Pound force	4.45	newtons
psi	703	kg/m ²
psi	6.89	kilopascal (kPa)

Approximate Conversions
From Metric Measures

When You Know	Multiply by	To Find
newton	100,000	dynes
newton	0.225	pound
		force

Note: 1 pascal = 1 newton/m²

Conversion Tables

Water	
U.S. Gallons	Pounds
1	8.35
2	16.69
3	25.04
4	33.38
5	41.73
6	50.07
7	58.42
8	66.76
9	75.11
10	83.45
11	91.80
12	100.14
13	108.49
14	116.83
15	125.18
16	133.52
17	141.87
18	150.21
19	158.56
20	166.90
21	175.25
22	183.59
23	191.94
24	200.28
25	208.63
26	216.97
27	225.32
28	233.66
29	242.01
30	250.35
31	258.70
32	267.04
33	275.39
34	283.73
35	292.08
36	300.42
37	308.77
38	317.11
39	325.46
40	333.80
41	342.15
42	350.49
43	358.84
44	367.18
45	375.53

Cement	
Bags	Pounds
0.25	23.5
0.50	47
0.75	70.5
1.00	94
1.25	117.5
1.50	141
1.75	164.5
2.00	188
2.25	211.5
2.50	235
2.75	258.5
3.00	282
3.25	305.5
3.50	329
3.75	352.5
4.00	376
4.25	399.5
4.50	423
4.75	446.5
5.00	470
5.25	493.5
5.50	517
5.75	540.5
6.00	564
6.25	587.5
6.50	611
6.75	634.5
7.00	658
7.25	681.5
7.50	705
7.75	728.5
8.00	752

Temperature	
°F	°C
0	-17.8
5	-15
10	-12.2
15	-9.4
20	-6.7
25	-3.9
30	-1.1
32	0
35	1.7
40	4.4
45	7.2
50	10
55	12.8
60	15.6
65	18.3
70	21.1
75	23.9
80	26.7
85	29.4
90	32.2
95	35
100	37.8
105	40.6
110	43.3
115	46.1
120	48.9
125	51.7
130	54.4
135	57.2
140	60
145	62.8
150	65.6
155	68.3
160	71.1
165	73.9
170	76.7
175	79.4
180	82.2
185	85
190	87.8
195	90.6
200	93.3
205	96.1
210	98.9
212	100

$$^{\circ}\text{C} = \frac{^{\circ}\text{F} - 32}{1.8}$$

$$1.8$$

$$^{\circ}\text{F} = 1.8 \times ^{\circ}\text{C} + 32$$

Approximate Floor Area in Square Feet from One Cubic Yard of Concrete for a Given Slab Thickness

Slab Thickness (inches)	Floor Area (Sq. Ft.)	Slab Thickness (inches)	Floor Area (Sq. Ft.)	Slab Thickness (inches)	Floor Area (Sq. Ft.)
1	324	5	65	9	36
1 1/4	259	5 1/4	62	9 1/4	35
1 1/2	216	5 1/2	59	9 1/2	34
2	162	5 3/4	56	9 3/4	33
2 1/4	144	6	54	10	32
2 1/2	130	6 1/4	52	10 1/4	31
2 3/4	118	6 1/2	50	10 1/2	31
3	108	6 3/4	48	10 3/4	30
3 1/4	100	7	46	11	29 1/2
3 1/2	93	7 1/4	44	11 1/4	29
3 3/4	86	7 1/2	43	11 1/2	28
4	81	7 3/4	42	11 3/4	27 1/2
4 1/4	76	8	40	12	27
4 1/2	72	8 1/4	39	12 1/4	26 1/2
4 3/4	68	8 1/2	38	12 1/2	26
		8 3/4	37	12 3/4	25 1/2

For other floor thicknesses, use:

Floor area (ft²) = 324 ÷ Slab thickness (in.)

Floor area (m²) = 1000 ÷ Slab thickness (mm)

(Metric)

Floor area in square meters from 1 cubic meter of concrete for a given slab thickness

Aggregate Extension

Using silica sand

Number of pounds ÷ 165.36 = Additional cu. ft.

Coverage for Coatings

Thickness of Coating Applied (1000 mils = 1 in.)	Coverage Per U.S. Gallon 100% Solids System
1/4 in. = 250 mils	6.4 ft ²
3/16 in. = 187.5 mils	8.5 ft ²
1/8 in. = 125 mils	12.8 ft ²
= 100 mils	16.0 ft ²
1/16 in. = 62.5 mils	22.5 ft ²
= 50 mils	32.0 ft ²
1/32 in. = 31.25 mils	51.0 ft ²
= 20 mils	80.0 ft ²
1/64 in. = 15.625 mils	102.0 ft ²
= 10 mils	160.0 ft ²
= 5 mils	320 ft ²
= 1 mil	1,600.0 ft ²

Epoxy Mortar and Patching Coverage

Mortar (Binder & Sand)	Coverage	Thickness
1 gallon	25.7 ft ²	1/16 in.
1 gallon	12.8 ft ²	1/8 in.
1 gallon	8.6 ft ²	3/16 in.
1 gallon	6.4 ft ²	1/4 in.
1 gallon	4.3 ft ²	3/8 in.
1 gallon	3.2 ft ²	1/2 in.

Resinous Binder	Silica Sand	Mortar Approximate
1 gallon	+1 gallon	1.6 gallons
1 gallon	+2 gallons	2.2 gallons
1 gallon	+3 gallons	2.8 gallons
1 gallon	+4 gallons	3.4 gallons
1 gallon	+5 gallons	4.0 gallons

Joint Fillers

	Width	1/4 in.	1/2 in.	3/4 in.	1 in.	1-1/4 in.	1-1/2 in.
DEPTH	1/4 in.	308					
	1/2 in.	154	77				
	3/4 in.	102.7	51.3	34.2			
	1 in.	77	38.5	25.7	19.3		
	1-1/4 in.	61.6	30.8	20.5	15.4	12.3	
	1-1/2 in.	51.3	25.7	17.1	12.8	10.3	8.6
	1-3/4 in.	44	22	14.7	11	8.8	7.3
	2 in.	38.5	19.3	12.8	9.6	7.7	6.4
	2-1/2 in.	30.8	15.4	10.3	7.7	6.2	5.1
	2 in.	25.7	12.8	8.6	6.4	5.1	4.3

Note: This chart is provided to assist in estimating material requirements and is not intended to endorse any shape configuration expressed therein.

Viscosity Guidelines

Viscosity in	=	Similar in
Centipoise	=	Consistency to
1	=	Water
500	=	#10 Motor Oil
2,500	=	Pancake Syrup
10,000	=	Honey
25,000	=	Chocolate Syrup
50,000	=	Catsup
250,000	=	Peanut Butter
1,000,000	=	Paste-Caulking Material

Miscellaneous Conversions

Metric & English Units

Metric Decimal Prefixes

Milli	=	1/1000
Kilo	=	1,000
Mega	=	1,000,000

Used With meters, liters, grams, etc.

English Units

12 inches	=	1 foot
3 feet	=	1 yard
5,280 feet	=	1 mile
144 in ²	=	1 ft ²
9 ft ²	=	1 yd ²
1,728 in ³	=	1 ft ³
27 ft ³	=	1 yd ³
8 fl. oz.	=	1 cup
2 cups	=	1 pint
2 pints	=	1 qt.
4 qt.	=	1 gallon
1 gal.	=	231 in ³
1 yd ³	=	202 gallons
.48 gallons	=	1 ft ³
8 pints	=	1 gallon

Epoxy Pot Life

Typically 18°F (8°C) rise in temperature cuts pot life in half. 18°F (8°C) drop in temperature doubles pot life.

Areas & Volumes (Formulas)

Circle

Area = Square of Diameter x 0.7854 or
Square of Radius x 3.1416

Circumference

Diameter x 3.1416

Diameter

Circumference x .3183

Doubling diameter increases area four times;
tripling diameter increases area nine times, etc.

Area of circular ring

3.1416 x (outside diameter squared minus inside
diameter squared)

Square

Area = Square of Side

Diagonal = Side x 1.4142

Side = Diagonal x 0.7071

Rectangle

Area = Length x Width

Diagonal = Square root of sum of squares of
Width and Length

Cube

Area of Surface = Square of Side x 6

Volume = Cube of Side

Diagonal = Side x 1.732

Cylinder

Area of Curved Surface = Diam. x Length x 3.1416

Volume = Square of Diameter x Length x 0.7854