

Standard Volumetric Capacities for Batcher (Showing Metric Equivalents) Consult the CPMB (Concrete Plant Manufacturers Bureau) for Hard Conversion Factors.

Cu. Yds.	Metric Equivalent (Cu. Meters)
1/2	.38
1	.76
1-1/2	1.2
2	1.5
3	2.3
4	3.1
4-1/2	3.4
5	3.8
6	4.6
7	5.4
8	6.1
9	6.9
10	7.7
11	8.4
12	9.2
13	9.9
14	10.7
15	11.5
16	12.2

Miscellaneous Information
 1 Barrel (U.S. Dry) = 4 cu. ft. (max)
 4.8 cu. ft. (min)
 1 Cu. Yd. = 27 cu. ft.

Material Weights

Agg.	100 lb./cu. ft.	1602 kg/cu. m
	110 lb./cu. ft.	1762 kg/cu. m
Cem.	70(min) lb./cu. ft.	1121 kg/cu. m
	94(max) lb./cu. ft.	1506 kg/cu. m
Flyash	50(min) lb./cu. ft.	801 kg/cu. m
	65(max) lb./cu. ft.	1041 kg/cu. m
Water	1 Gallon	8.34 lb. 3.78 L

Conversion from inch-pound to SI Metric

From	To		Multiply by
	symbol	base unit	
in.	mm	millimeter	25.4 exactly
lb.	kg	kilogram	0.45359
yd. ³	m ³	meter	0.76455
ft. ³	m ³		0.028318
lb./ft. ³	kg/m ³		16.01846
lb./yd. ³	kg/m ³		0.59328
oz./cwt.	ml/100kg		65.198
gallon	liter, L	liter	3.7854
gal./yd. ³	l/m ³		4.9511

ONE CUBIC YARD CONCRETE WILL COVER

Depth Sq. ft.

1 in.	324
2 in.	162
3 in.	108
4 in.	81
5 in.	65
6 in.	54
7 in.	46
8 in.	40
9 in.	36
10 in.	32.5
11 in.	29.5
12 in.	27

METRIC EQUIVALENT OF U.S. WEIGHTS AND MEASURES

LIQUID MEASURE		SQUARE MEASURE	
1 pint	= .473167 liter	1 sq. inch	= 6.4516 sq. centimeters
1 quart	= .946332 liter	1 sq. foot	= 9.29034 sq. decimeters
1 gallon	= 3.785329 liters	1 sq. yard	= .836131 sq. meter
		1 acre	= .40469 hectare
		1 sq. mile	= 2.59 sq. kilometers
		1 sq. mile	= 259 hectares
LONG MEASURE		CUBIC MEASURE	
1 inch	= 2.54 centimeters	1 cu. inch	= 16.3872 cu. centimeters
1 yard	= .914401 meter	1 cu. foot	= .028317 cu. meter
1 mile	= 1.609347 kilometers	1 cu. yard	= .76456 cu. meter
DRY MEASURE		AVOIRDUPOIS MEASURE	
1 pint	= .550599 liter	1 ounce	= 28.349527 grams
1 quart	= 1.101197 liters	1 pound	= .453592 kilogram
1 peck	= 8.80958 liters	1 short ton	= .90718486 metric ton
1 bushel	= .35238 hectoliter	1 long ton	= 1.01604704 metric tons

ASTM C 33 Nominal Sizes for Coarse Aggregates

Size Numbers	Nominal Size	
	U.S. Customary	SI (Metric)
1	3-1/2 to 1-1/2 in.	90 to 37.5 mm
2	2-1/2 to 1-1/2 in.	63 to 37.5 mm
3	2 to 1 in.	50 to 25.0 mm
357	2 in. to No. 4	50 to 4.75 mm
4	1-1/2 to 3/4 in.	37.5 to 19.0 mm
467	1-1/2 in. to No. 4	37.5 to 4.75 mm
5	1 to 1/2 in.	25.0 to 12.5 mm
56	1 to 3/8 in.	25.0 to 9.5 mm
57	1 in. to No. 4	25.0 to 4.75 mm
6	3/4 to 3/8 in.	19.0 to 9.5 mm
67	3/4 in. to No. 4	19.0 to 4.75 mm
7	1/2 in. to No. 4	12.5 to 4.75 mm
8	3/8 in. to No. 8	9.5 to 2.36 mm

KILOMETER - MILE CONVERSION

KILOMETERS INTO MILES	MILES INTO KILOMETERS
1	0.6
5	3.1
10	6.2
20	12.4
30	18.6
40	24.8
50	31.1
60	37.3
70	43.5
80	49.7
90	55.9
100	62.1
500	310.7
1000	621.4

To convert kilometers to miles, multiply by 0.62 - to convert miles to kilometers, divide by 0.62

METRIC TABLE

CAPACITY		AREA	
10 milliliters	= 1 centiliter	100 sq. millimeters	= 1 sq. centimeter
10 centiliters	= 1 deciliter	100 sq. centimeters	= 1 sq. decimeter
10 deciliters	= 1 liter	100 sq. decimeters	= 1 sq. meter (centare)
10 liters	= 1 dekaliter	100 sq. meters	= 1 are
10 dekaliters	= 1 hectoliter	10,000 sq. meters	= 1 hectare
1,000 liters	= 1 kiloliter (stere)	100 hectares	= 1 sq. kilometer
LENGTH		WEIGHT	
10 millimeters	= 1 centimeter (cm)	10 milligrams	= 1 centigram
10 centimeters	= 1 decimeter	10 centigrams	= 1 decigram
10 decimeters	= 1 meter (m)	10 decigrams	= 1 gram
10 meters	= 1 dekameter	1,000 grams	= 1 kilogram (kilo)
100 meters	= 1 hectometer	100 kilograms	= 1 quintal
1,000 meters	= 1 kilometer	1,000 kilograms	= 1 metric ton

Concrete Properties:

Property	U.S. Customary	SI (Metric) Equivalents
Slump	6 in.	150 mm
Temperature	80° F	27° C
Unit Weight	150 lb./cu. ft.	240 kg/m ³
Air Content	6%	6%
Compressive Strength	4,000 psi	28 MPa
Flexural Strength	800 psi	5.5 MPa
Elastic Modulus	4 x 10 ⁶ psi	27580 MPa or 27.6 GPa

Property	U.S. Customary	Conversion Factor	SI (Metric)	Conversion Factor	U.S. Customary
Unit Weight	lb./ft. ³	x 16.02	= kg/m ³	x 0.06242	= lb./ft. ³
Product Density	Short ton/yd. ³	x 1.187	= metric ton/m ³	x 0.8428	= Short ton/yd. ³
Mixture Proportions	lb./yd. ³	x 0.5933	= kg/m ³	x 1.686	= lb./yd. ³
	gal./yd. ³	x 4.951	= L/m ³	x 0.2020	= gal./yd. ³
Admixture Dosage	fl. oz./cwt.	x 0.6520	= mL/kg	x 1.534	= fl. oz./cwt.
	fl. oz./cwt.	x 65.20	= mL/100 kg	x 0.01534	= fl. oz./cwt.
	fl. oz./yd. ³	x 0.03868	= L/m ³	x 25.85	= fl. oz./yd. ³
Load or Force	lbf.	x 4.448	= N	x 0.2248	= lbf.
Strength	psi	x 0.006895	= MPa	x 145.0	= psi

Sieve Sizes: (Based of ASTM E 11 Standard Specifications for Wire-Cloth Sieves for Testing Purposes)

Sieve	Opening in Inches	Non SI Equivalent
75 mm	3.0	3 in.
50 mm	2.0	2 in.
37.5 mm	1.5	1-1/2 in.
25.0 mm	1.0	1 in.
19.0 mm	0.75	3/4 in.
9.5 mm	0.375	3/8 in.
4.75 mm	0.187	No. 4
2.36 mm	0.0937	No. 8
1.18 mm	0.0469	No. 16
600 µm	0.0234	No. 30
300 µm	0.0117	No. 50
150 µm	0.0059	No. 100
75 µm	0.0029	No. 200

Strength: (All approximate conversions)

1 MPa - 145 psi
 20 MPa - 3000 psi
 35 MPa - 5000 psi
 48 MPa - 7000 psi
 100 MPa - 14500 psi

Temperature:
 Water freezes - 0° C - 32° F
 Water boils - 100° C - 212° F
 Body Temperature - 37° C - 98.6° F

