

Concrete-Related Metric Conversions

The metric system, in use by most of the world, is increasingly being used by the construction industry in the United States.

Here's a quick guide to help you make the necessary conversions:

- **Concrete Volume:** One cubic yard = 0.7645549 cubic meters.
- **Compressive Strength:** One pound per square inch = 0.006894757 mega pascals (MPa).
- **Batch Quantities:** One pound per cubic yard = 0.5932764 kilograms (kg) per cubic meter.
- **Unit Weight (Density):** One pound per cubic foot = 16.018846 kilograms (kg) per cubic meter.
- **Admixture Volume:** One fluid ounce per 100 pounds = 65.19847 milliliters (ml) per 100 kilograms.
- **Water Volume:** One gallon per cubic yard = 4.951132 liters per cubic meter.
- **Length/Depth:** One inch = 25.4 millimeters (mm).
- **Mass:** One pound = 0.4535924 kilograms (kg).
- **Area:** One square foot = 0.0929034 square meters.
- **Temperature:** Degrees Celsius = (Fahrenheit degrees – 32 degrees) / 1.8.

Here are some specific examples to help:

Measurement Type	U.S. Value	Metric Value
Concrete design strength	3000 psi	21 MPa
Cement content	564 pounds/cubic yard	335 kg/cubic meter
Ready-mix truck capacity	9 cubic yards	7 cubic meters
Slump	3-4 inches	75-100 mm (hard)
Slab thickness	6 inches	150 mm (hard)
Density of concrete	145 pounds/cubic foot	2,323 kg/cubic meter
Bag of cement, weight	94 pounds	40 kg (hard Canadian)
Rebar designation	#3 to #18	10-55 mm (hard)
Vapor barrier, thickness	6 mils	150 microns

*Call your knowledgeable Kuhlman representative
for help with metric conversions.*