

METRIC CONVERSION CHARTS

To Convert From	To	Multiply By	To Convert From	To	Multiply By
Angle			Length		
degree	radian (rad)	1.745329 x 10 ⁻²	foot (ft)	meter (m)	3.048000 x 10 ⁻¹
radian (rad)	degree	5.729578 x 10 ⁺¹	inch (in)	meter (m)	2.540000 x 10 ⁻²
Area			mil	meter (m)	2.540000 x 10 ⁻⁵
foot ²	square meter (m ²)	9.290304 x 10 ⁻²	inch (in)	micrometer (µm)	2.540000 x 10 ⁺⁴
inch ²	square meter (m ²)	6.451600 x 10 ⁻⁴	meter (m)	foot (ft)	3.280840
circular mil	square meter (m ²)	5.067075 x 10 ⁻¹⁰	meter (m)	inch (in)	3.937008 x 10 ⁺¹
sq. centimeter (cm ²)	square inch (in ²)	1.550003 x 10 ⁻¹	meter (m)	mil	3.937008 x 10 ⁺⁴
square meter (m ²)	foot ²	1.076391 x 10 ⁺¹	micrometer (µm)	inch (in)	3.937008 x 10 ⁻⁵
square meter (m ²)	inch ²	1.550003 x 10 ⁺³	Volume		
square meter (m ²)	circular mil	1.973525 x 10 ⁺⁹	foot ³	cubic meter (m ³)	2.831685 x 10 ⁻²
Temperature			inch ³	cubic meter (m ³)	1.638706 x 10 ⁻⁵
degree Fahrenheit	degree Celsius	$t^{\circ}\text{C} = (t^{\circ}\text{F} - 32) / 1.8$	cubic centimeter (cm ³)	cubic inch (in ³)	6.102374 x 10 ⁻²
degree Celsius	degree Fahrenheit	$t^{\circ}\text{F} = 1.8 t^{\circ}\text{C} + 32$	cubic meter (m ³)	foot ³	3.531466 x 10 ⁺¹
Force			cubic meter (m ³)	inch ³	6.102376 x 10 ⁺⁴
pounds-force (lbf)	newtons (N)	4.448222	gallon (U.S. liquid)	cubic meter (m ³)	3.785412 x 10 ⁻³

To Convert From	To	Multiply By
Bending Moment or Torque		
lbf•ft	newton meter (N•m)	1.355818
lbf•in	newton meter (N•m)	1.129848 x 10 ⁻¹
N•m	lbf•ft	7.375621 x 10 ⁻¹
N•m	lbf•in	8.850748
Mass		
pound (avoirdupois)	kilogram (kg)	4.535924 x 10 ⁻¹
kilogram (kg)	pound (avoirdupois)	2.204622
Mass Per Unit Length		
lb/ft	kilogram per meter (kg/m)	1.488164
lb/in	kilogram per meter (kg/m)	1.785797 x 10 ⁺¹
kg/m	lb/ft	6.719689 x 10 ⁻¹
kg/m	lb/in	5.599741 x 10 ⁻²
Mass Per Unit Volume		
lb/ft ³	kilogram per cubic meter (kg/m ³)	1.601846 x 10 ⁺¹
lb/in ³	kilogram per cubic meter (kg/m ³)	2.767990 x 10 ⁺⁴
kg/m ³	lb/ft ³	6.242797 x 10 ⁻²
kg/m ³	lb/in ³	3.612730 x 10 ⁻⁵
lbs/ft ³	lbs/in ³	1.728000 x 10 ⁺³
Mass Per Area Unit		
lb/ft ²	kilogram per square meter (kg/m ²)	4.882428
kg/m ²	pound per square foot (lb/ft ²)	2.048161 x 10 ⁻¹
Pressure or Stress		
lbf/in ² (psi)	pascal (Pa)	6.894757 x 10 ⁺³
kip/in ² (ksi)	pascal (Pa)	6.894757 x 10 ⁺⁶
lbf/in ² (psi)	megapascals (MPa)	6.894757 x 10 ⁻³
pascal (Pa)	pound force per sq. inch (psi)	1.450377 x 10 ⁻⁴
pascal (Pa)	kip per sq. inch (ksi)	1.450377 x 10 ⁻⁷



B-Line

COOPER B-Line
509 West Monroe Street
Highland, Illinois 62249
Phone: 800-851-7415
Fax: 618-654-1917

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Raafat S. Aboulhosn
Structural Engineer

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