

# Conductor Facts



## Conversion Factors

MULTIPLY	BY	TO OBTAIN
<b>Tensile Strength - US/English</b> Kilopounds per square inch (ksi) Kilopounds per square inch (ksi)	0.7031 6.8948	Kilograms per square millimeter (kg/mm <sup>2</sup> ) Megapascals (MPa) or Newtons per square millimeter (N/mm <sup>2</sup> )
<b>Tensile Strength - Metric</b> Kilograms per square millimeter (kg/mm <sup>2</sup> ) Megapascals (MPa)	1,422.3 0.1450	Pounds per square inch (psi) Kilopounds per square inch (ksi)
<b>Force – US/English</b> Pound force (lb)	4.4482	Newton (N)
<b>Force –Metric</b> Newton (N)	0.22481	Pound force (lb)
<b>Resistance - US/English</b> Ohms per 1000 ft ( $\Omega$ /mft) Ohms per mile ( $\Omega$ /mile)	3.2808 0.62137	Ohms per kilometer ( $\Omega$ /km) Ohms per kilometer ( $\Omega$ /km)
<b>Resistance – Metric</b> Ohms per kilometer ( $\Omega$ /km) Ohms per kilometer ( $\Omega$ /km)	0.3048 1.6093	Ohms per 1000 ft ( $\Omega$ /mft) Ohms per mile ( $\Omega$ /mile)
<b>Resistivity - US/English</b> Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Micro-ohm-inch (m $\Omega$ -in) % IACS	0.16624 0.0016624 0.065450 15.279 1037.1 $\div$ %IACS	Micro-ohm centimeter (m $\Omega$ -cm) Ohm-square millimeter per meter ( $\Omega$ -mm <sup>2</sup> /m) Micro-ohm inch (m $\Omega$ -in) Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Ohm-circular mil per foot ( $\Omega$ -cmil/ft)
<b>Resistivity – Metric</b> Micro-ohm centimeter (m $\Omega$ -cm) Micro-ohm centimeter (m $\Omega$ -cm) Micro-ohm centimeter (m $\Omega$ -cm) Ohm-square millimeter per meter ( $\Omega$ -mm <sup>2</sup> /m) % IACS	6.0153 0.39370 0.0100 601.54 172.41 $\div$ %IACS	Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Micro-ohm inch (m $\Omega$ -in) Ohm-square millimeter per meter ( $\Omega$ -mm <sup>2</sup> /m) Ohm-circular mil per foot ( $\Omega$ -cmil/ft) Micro-ohm centimeter (m $\Omega$ -cm)
<b>Weight - US/English</b> Pounds per 1000 ft (lbs/mft)	1.4882	Kilograms per kilometer (kg/km)
<b>Weight – Metric</b> Kilograms per kilometer (kg/km)	0.67197	Pounds per 1000 ft (lbs/mft)
<b>Density - US/English</b> Pounds per cubic inch (lb/in <sup>3</sup> )	27.68	Grams per cubic centimeter (gm/cm <sup>3</sup> )
<b>Density – Metric</b> Grams per cubic centimeter (gm/cm <sup>3</sup> )	0.03613	Pounds per cubic inch (lb/in <sup>3</sup> )
<b>Cross-Sectional Area - US/English</b> Circular mils (CMA or cmil) Square inches (in <sup>2</sup> ) Circular mils (CMA or cmil) Square inches (in <sup>2</sup> )	0.0005067 645.16 0.0000007854 1,273,240	Square millimeter (mm <sup>2</sup> ) Square millimeter (mm <sup>2</sup> ) Square inches (in <sup>2</sup> ) Circular mils (CMA or cmil)
<b>Cross-Sectional Area - Metric</b> Square millimeter (mm <sup>2</sup> ) Square millimeter (mm <sup>2</sup> )	1973.6 0.00155	Circular mils (CMA or cmil) Square inches (in <sup>2</sup> )

The information provided on this page is for reference purposes only.