

## Commonly Used Conversion Factors

| Weight Conversions |                   |             |
|--------------------|-------------------|-------------|
| To convert from    | To                | Multiply by |
| grams              | ounces (avdp)     | 0.03527     |
| kilograms          | newtons           | 9.807       |
| kilograms          | ounces (avdp)     | 35.27       |
| kilograms          | pounds (avdp)     | 2.205       |
| kilograms          | pounds (troy)     | 2.679       |
| newtons            | kilograms         | 0.102       |
| ounces (troy)      | ounces (avdp)     | 1.097       |
| ounces (troy)      | pounds (avdp)     | 0.06857     |
| ounces (troy)      | pounds (troy)     | 0.08333     |
| ounces (avdp)      | grams             | 28.35       |
| ounces (avdp)      | ounces (troy)     | 0.9115      |
| pounds (avdp)      | kilograms         | 0.4536      |
|                    |                   |             |
| dwt (pennyweight)  | grams             | 1.555       |
| dwt (pennyweight)  | ounces (avdp)     | 0.05486     |
| dwt (pennyweight)  | ounces (troy)     | 0.05        |
| grams              | dwt (pennyweight) | 0.643       |

| Weight Conversions |                   |             |
|--------------------|-------------------|-------------|
| To convert from    | To                | Multiply by |
|                    |                   |             |
| ounces (avdp)      | dwt (pennyweight) | 18.23       |
| ounces (troy)      | dwt (pennyweight) | 20          |
|                    |                   |             |
| pounds (avdp)      | ounces (troy)     | 14.58       |
| pounds (avdp)      | kilograms         | 0.4536      |
| pounds (troy)      | kilograms         | 0.3732      |
| pounds (troy)      | ounces (troy)     | 12          |

| Force/Unit Area (Pressure) Conversions        |                            |             |
|---|----------------------------|-------------|
| To convert from                               | To                         | Multiply by |
| kilograms/cm <sup>2</sup>                     | psi                        | 14.223      |
| kilograms/mm <sup>2</sup>                     | psi                        | 1422.3      |
| megapascals (Mpa or Newtons/mm <sup>2</sup> ) | psi                        | 145.04      |
| newtons/meter <sup>2</sup>                    | pascals                    | 1           |
| newtons/meter <sup>2</sup>                    | psi                        | 0.000145    |
| pascals                                       | newtons/meter <sup>2</sup> | 1           |
| pascals                                       | psi                        | 0.000145    |
| pounds/in <sup>2</sup> (psi)                  | kilograms/cm <sup>2</sup>  | 0.07031     |
| pounds/in <sup>2</sup> (psi)                  | kilograms/mm <sup>2</sup>  | 6894.8      |
| pounds/in <sup>2</sup> (psi)                  | pascals                    | 6894.8      |

| Length Conversions |             |                        |
|--------------------|-------------|------------------------|
| To convert from    | To          | Multiply by            |
| angstroms          | inches      | $3.937 \times 10^{-9}$ |
| centimeters        | inches      | 0.3937                 |
| centimeters        | feet        | 0.03281                |
| feet               | centimeters | 30.48                  |
| feet               | meters      | 0.3048                 |
| feet               | millimeters | 304.8                  |
| inches             | angstroms   | $2.54 \times 10^8$     |
| inches             | centimeters | 2.54                   |
| inches             | meters      | 0.0254                 |
| inches             | millimeters | 25.4                   |
| meters             | angstroms   | $1 \times 10^{10}$     |
| meters             | feet        | 3.281                  |
| meters             | inches      | 39.37                  |
| millimeters        | feet        | 0.003281               |
| millimeters        | inches      | 0.03937                |

| Speed/Resistance/Density Conversions |                             |             |
|--------------------------------------|-----------------------------|-------------|
| To convert from                      | To                          | Multiply by |
| centimeters/sec                      | ft/min                      | 1.9685      |
| centimeters/sec                      | inches/sec                  | 0.3937      |
| ft/min                               | inches/sec                  | 0.2         |
| ft/min                               | centimeters/sec             | 0.508       |
| gram-centimeters                     | ounces-inches               | 0.01389     |
| inches/sec                           | ft/min                      | 5           |
| microhm cm                           | ohms/cir.mil ft             | 6.015       |
| ohms/cir.mil ft                      | microhm cm                  | 0.1662      |
| ohms/cir.mil ft                      | ohms mm <sup>2</sup> /meter | 0.001662    |
| ohms/ft                              | ohms/meter                  | 3.281       |
| ohms/meter                           | ohms/ft                     | 0.3048      |
| ohms mm <sup>2</sup> /meter          | ohms/cir.mil ft             | 601.5       |
| ounces/inch                          | gram-centimeters            | 72.01       |