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| --- | --- | --- | --- | --- |
| **SI\* (MODERN METRIC) CONVERSION FACTORS** | | | | |
| **APPROXIMATE CONVERSIONS TO SI UNITS** | | | | |
| **SYMBOL** | **WHEN YOU KNOW** | **MULTIPLY BY** | **TO FIND** | **SYMBOL** |
|  |  | **LENGTH** |  |  |
| in | inches | 25.4 | millimeters | mm |
| ft | feet | 0.305 | meters | m |
| yd | yards | 0.914 | meters | m |
| mi | miles | 1.61 | kilometers | km |
|  |  | **AREA** |  |  |
| in2 | square inches | 645.2 | square millimeters | mm2 |
| ft2 | square feet | 0.093 | square meters | m2 |
| yd2 | square yard | 0.836 | square meters | m2 |
| ac | acres | 0.405 | hectares | ha |
| mi2 | square miles | 2.59 | square kilometers | km2 |
| fl oz gal ft3 yd3 | **VOLUME**  fluid ounces 29.57 milliliters  gallons 3.785 liters  cubic feet 0.028 cubic meters  cubic yards 0.765 cubic meters NOTE: volumes greater than 1000 L shall be shown in m3 | | | mL L  m3  m3 |
|  | **MASS** | | |  |
| oz | ounces 28.35 grams | | | g |
| lb | pounds 0.454 kilograms | | | kg |
| T | short tons (2000 lb) 0.907 megagrams (or "metric ton") Mg (or "t") | | | |
| oF | **TEMPERATURE (exact degrees)**  Fahrenheit 5 (F-32)/9 Celsius or (F-32)/1.8 | | | oC |
|  | **ILLUMINATION** | | |  |
| fc | foot-candles 10.76 lux | | | lx |
| fl | foot-Lamberts 3.426 candela/m2 | | | cd/m2 |
|  | **FORCE and PRESSURE or STRESS** | | |  |
| lbf | poundforce 4.45 newtons | | | N |
| lbf/in2 | poundforce per square inch 6.89 kilopascals | | | kPa |
| **APPROXIMATE CONVERSIONS FROM SI UNITS** | | | | |
| **SYMBOL** | **WHEN YOU KNOW MULTIPLY BY TO FIND** | | | **SYMBOL** |
|  | **LENGTH** | | |  |
| mm | millimeters 0.039 inches | | | in |
| m | meters 3.28 feet | | | ft |
| m | meters 1.09 yards | | | yd |
| km | kilometers 0.621 miles | | | mi |
|  | **AREA** | | |  |
| mm2 | square millimeters 0.0016 square inches | | | in2 |
| m2 | square meters 10.764 square feet | | | ft2 |
| m2 | square meters 1.195 square yards | | | yd2 |
| ha | hectares 2.47 acres | | | ac |
| km2 | square kilometers 0.386 square miles | | | mi2 |
|  | **VOLUME** | | |  |
| mL | milliliters 0.034 fluid ounces | | | fl oz |
| L | liters 0.264 gallons | | | gal |
| m3 | cubic meters 35.314 cubic feet | | | ft3 |
| m3 | cubic meters 1.307 cubic yards | | | yd3 |
|  | **MASS** | | |  |
| g | grams 0.035 ounces | | | oz |
| kg | kilograms 2.202 pounds | | | lb |
| Mg (or "t") | megagrams (or "metric ton") 1.103 short tons (2000 lb) | | | T |
|  | **TEMPERATURE (exact degrees)** | | |  |
| oC | Celsius 1.8C+32 Fahrenheit | | | oF |
|  | **ILLUMINATION** | | |  |
| lx | lux 0.0929 foot-candles | | | fc |
| cd/m2 | candela/m2 0.2919 foot-Lamberts | | | fl |
|  | **FORCE and PRESSURE or STRESS** | | |  |
| N | newtons 0.225 poundforce | | | lbf |
| kPa | kilopascals 0.145 poundforce per square inch | | | lbf/in2 |

\*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380. (Revised March 2003)