

CONVERSION FACTORS (Continued)

| To convert | To | Multiply by |
|---|-----------------------|-------------|
| DENSITY (MASS PER UNIT VOLUME) | | |
| 1 lb/ft ³ | kg/m ³ | 16.0185 |
| 1 lb/yd ³ | kg/m ³ | 0.593 276 |
| 1 ton/yd ³ | t/m ³ | 1.186 55 |
| FORCE | | |
| 1 tonf (ton-force) | kN | 8.896 44 |
| 1 kip (1,000 lbf) | kN | 4.448 22 |
| 1 lbf (pound-force) | N | 4.448 22 |
| MOMENT OF FORCE, TORQUE | | |
| 1 lbf·ft | N·m | 1.355 82 |
| 1 lbf·in | N·m | 0.112 985 |
| 1 tonf·ft | kN·m | 2.711 64 |
| 1 kip·ft | kN·m | 1.355 82 |
| FORCE PER UNIT LENGTH | | |
| 1 lbf/ft | N/m | 14.5939 |
| 1 lbf/in | N/m | 175.127 |
| 1 tonf/ft | kN/m | 29.187 8 |
| PRESSURE, STRESS, MODULUS OF ELASTICITY (Force per Unit Area) (1 Pa=1 N/m²) | | |
| 1 tonf/in ² | MPa | 13.7895 |
| 1 tonf/ft ² | kPa | 95.7605 |
| 1 kip/in ² | MPa | 6.894 76 |
| 1 lbf/in ² | kPa | 6.894 76 |
| 1 lbf/ft ² | Pa | 47.8803 |
| Atmosphere | kPa | 101.3250 |
| 1 inch mercury | kPa | 3.376 85 |
| 1 foot (water column @32°F) | kPa | 2.988 98 |
| WORK, ENERGY, HEAT (1J = 1N·m = 1W·s) | | |
| 1 kWh (550 ft·lbf/s) | Mj | 3.6 |
| 1 Btu (Int. Table) | kJ | 1.055 06 |
| | J | 1055.06 |
| 1 ft·lbf | J | 1.355 82 |
| COEFFICIENT OF HEAT TRANSFER | | |
| 1 Btu/(ft ² ·h·°F) | W/(m ² ·K) | 5.678 26 |
| THERMAL CONDUCTIVITY | | |
| 1 Btu/(ft·h·°F) | W/(m·K) | 1.730 73 |
| ILLUMINANCE | | |
| 1 lm/ft ² (footcandle) | lx (lux) | 10.7639 |
| LUMINANCE | | |
| 1 cd/ft ² | cd/m ² | 10.7639 |
| 1 foot lambert | cd/m ² | 3.426 26 |
| 1 lambert | kcd/m ² | 3.183 01 |