

1.0 Konverze jednotek

| | | | | | | | | | | | |
|-------------|----|-------------------|---|---|-------------|-----------------------|---|---|-------------|-----------------------|---|
| Délka | 1 | m | ▼ | = | 3.280839895 | feet | ▼ | = | 3.280839895 | feet | ▼ |
| Plocha | 1 | m ² | ▼ | = | 10000 | cm ² | ▼ | = | 10.76391042 | feet ² | ▼ |
| Objem | 1 | cm ³ | ▼ | = | 0.061023744 | inch ³ | ▼ | = | 0.000219969 | Imp gal | ▼ |
| Průtok | 1 | litre/s | ▼ | = | 2.1189 | ft ³ /min | ▼ | = | 0.035315 | ft ³ /s | ▼ |
| Hmotnost | 1 | kg | ▼ | = | 2.204624 | lb | ▼ | = | 35.273991 | oz | ▼ |
| Hustota | 1 | kg/m ³ | ▼ | = | 0.000578038 | oz/in ³ | ▼ | = | 0.062427818 | lb/feet ³ | ▼ |
| Setrvačnost | 1 | kg*m ² | ▼ | = | 0.737561 | lbf*ft*s ² | ▼ | = | 141.61197 | ozf*in*s ² | ▼ |
| Síla | 1 | N | ▼ | = | 0.224809 | lbf | ▼ | = | 101.971621 | p | ▼ |
| Moment | 1 | N*m | ▼ | = | 8.850732 | lbf*in | ▼ | = | 11.80099742 | ozf*ft | ▼ |
| Rychlost | 1 | m/s | ▼ | = | 60 | m/min | ▼ | = | 3.280839895 | ft/s | ▼ |
| Zrychlení | 1 | m/s ² | ▼ | = | 3.280839895 | ft/s ² | ▼ | = | 3600 | m/min ² | ▼ |
| Výkon | 1 | kW | ▼ | = | 1.34102 | HP | ▼ | = | 101.97 | kg*m/s | ▼ |
| Energie | 1 | N*m | ▼ | = | 0.000947813 | BTU | ▼ | = | 0.000277778 | Wh | ▼ |
| Tlak | 1 | kPa | ▼ | = | 0.145037 | psi | ▼ | = | 1000 | Pa | ▼ |
| Čas | 0 | hodina | ▼ | = | 0 | minuta | ▼ | = | 0 | sekunda | ▼ |
| Teplota | 20 | °C | ▼ | = | 68 | °F | ▼ | = | 293.15 | °K | ▼ |

Míra ozubení

2.0 Tabulka tvrdosti

| HV | HRB | HRC | HB | HB | HB | S | Rm | ScSc |
|-----|------|------|------|-----|-----|-----|------|------|
| 122 | 67 | | 5.5 | 116 | 116 | 58 | 401 | 15 |
| 127 | 70 | | 5.4 | 121 | 121 | 63 | 432 | - |
| 132 | 72.5 | | 5.3 | 126 | 126 | 65 | 448 | 20 |
| 137 | 75 | | 5.2 | 131 | 131 | 66 | 455 | 20.5 |
| 143 | 77 | | 5.1 | 137 | 137 | 67 | 463 | 21 |
| 150 | 80 | | 5 | 143 | 143 | 69 | 479 | 22 |
| 156 | 82 | | 4.9 | 149 | 149 | 72 | 494 | - |
| 163 | 84.2 | | 4.8 | 156 | 156 | 76 | 525 | 23 |
| 171 | 86 | | 4.7 | 163 | 163 | 78 | 540 | - |
| 178 | 88.5 | | 4.6 | 170 | 170 | 81 | 556 | 24 |
| 188 | 91 | 12 | 4.5 | 179 | 179 | 88 | 602 | - |
| 196 | 93 | | 4.4 | 187 | 187 | 92 | 632 | 25 |
| 212 | 96 | 15 | 4.3 | 197 | 197 | 97 | 664 | 27 |
| 218 | 97 | | 4.2 | 207 | 207 | 101 | 695 | 28 |
| 222 | 98 | 19 | 4.15 | 212 | 212 | 103 | 710 | 29 |
| 228 | - | 20 | 4.1 | 217 | 217 | 107 | 741 | - |
| 234 | - | 20.8 | 4.05 | 223 | 223 | 110 | 756 | 30 |
| 241 | - | 22 | 4 | 229 | 229 | 112 | 772 | 31 |
| 247 | 101 | 23 | 3.95 | 235 | 235 | 114 | 787 | 32 |
| 255 | - | 24.3 | 3.9 | 241 | 241 | 118 | 818 | 33 |
| HV | HRB | HRC | HB | HB | HB | S | Rm | ScSc |
| 261 | 104 | 25.2 | 3.85 | 248 | 248 | 123 | 849 | 34 |
| 269 | 105 | 26.6 | 3.8 | 255 | 255 | 125 | 865 | 35 |
| 275 | - | 27.5 | 3.75 | 262 | 262 | 130 | 895 | 36 |
| 284 | 106 | 29 | 3.7 | 269 | 269 | 132 | 911 | 37 |
| 292 | - | 29.8 | 3.65 | 277 | 277 | 136 | 942 | 38 |
| 300 | - | 30.9 | 3.6 | 285 | 285 | 141 | 973 | 40 |
| 308 | 109 | 32 | 3.55 | 293 | 293 | 143 | 988 | 41 |
| 318 | | 33 | 3.5 | 302 | 302 | 147 | 1019 | 42 |
| 327 | | 34 | 3.45 | 311 | 311 | 152 | 1050 | 43 |
| 337 | | 35 | 3.4 | 321 | 321 | 159 | 1096 | 45 |
| 349 | | 36.7 | 3.35 | 331 | 331 | 163 | 1127 | 46 |
| 359 | | 37.7 | 3.3 | 341 | 341 | 168 | 1158 | 48 |
| 370 | | 38.8 | 3.25 | 352 | 352 | 172 | 1189 | 49 |
| 381 | | 39.9 | 3.2 | 363 | 363 | 179 | 1235 | 51 |

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|------------------------------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|-------|-------|--|
| Protlačování | | | | | | | | | | | | | | |
| Válcování za studena, tažení | | | | | | | | | | | | | | |
| Tlakové lití | | | | | | | | | | | | | | |
| Ra (µm) | 50 | 25 | 12.5 | 6.3 | 3.2 | 1.6 | 0.8 | 0.4 | 0.2 | 0.1 | 0.05 | 0.025 | 0.012 | |
| Ra (µin) | 2000 | 1000 | 500 | 250 | 125 | 63 | 32 | 16 | 8 | 4 | 2 | 1 | 0.5 | |
| Rz (µm) | 100 | 50 | 25 | 12.5 | 6.3 | 3.2 | 1.6 | 0.8 | 0.4 | 0.2 | 0.1 | 0.05 | 0.025 | |

4.0 Měrná hmotnost a tepelná roztažnost

| | | Měrná hmotnost | | Roztažnost materiálu | | | |
|----|---------------------------------|----------------------|----------------------|----------------------|--------|---------------|--------|
| ID | Název materiálu | [kg/m ³] | lb/in ³ ▼ | [m/m/C*e-6] | C | [in/in/F*e-6] | F |
| 1 | Ocel uhlíková | 7850 | 0.283598594 | 11.7 | 20-100 | 6.500 | 68-212 |
| 2 | Ocel na transformátorové plechy | 7850 | 0.283598594 | | | | |
| 3 | Bronz cínový (8%Sn) | 8800 | 0.317919443 | 17.5 | 20-100 | 9.722 | 68-212 |
| 4 | Bronz hliníkový (9%Al) | 7600 | 0.274566791 | 15.6 | 20-100 | 8.667 | 68-212 |
| 5 | Bronz olověný (25%Pb) | 8800 | 0.317919443 | 18.4 | 20-200 | 10.222 | 68-392 |
| 6 | Dural | 2800 | 0.101156186 | 22.9 | 20-100 | 12.722 | 68-212 |
| 7 | Hliník (99.5%) | 2700 | 0.097543465 | 23.8 | 20-100 | 13.222 | 68-212 |
| 8 | Šedá litina | 7200 | 0.260115908 | 8.5 | 20-100 | 4.722 | 68-212 |
| 9 | Měď (99.5%) | 8890 | 0.321170892 | 17.7 | 25-300 | 9.833 | 77-572 |
| 10 | Mosaz (70%Cu) | 8550 | 0.30888764 | 18.5 | 25-100 | 10.278 | 77-212 |
| 11 | Cín (Sn) | 7280 | 0.263006084 | 27 | 20 | 15.000 | 68 |
| 12 | Hořčík (Mg) | 1740 | 0.062861344 | 26 | 20 | 14.444 | 68 |
| 13 | Chrom (Cr) | 7100 | 0.256503187 | 8 | 20 | 4.444 | 68 |
| 14 | Stříbro (Ag) | 10500 | 0.379335699 | 18.9 | 20 | 10.500 | 68 |
| 15 | Titan (Ti) | 4530 | 0.163656259 | 9 | 20 | 5.000 | 68 |
| 16 | Wolfram (W) | 19300 | 0.697255141 | 4.3 | 20 | 2.389 | 68 |
| 17 | Dub | 680 | 0.024566502 | | | | |
| 18 | Smrk | 330 | 0.011921979 | | | | |
| 19 | Borovice | 500 | 0.018063605 | | | | |
| 20 | Modřín | 680 | 0.024566502 | | | | |
| 21 | Korek | 250 | 0.009031802 | | | | |
| 22 | Polyamid 6 | 1150 | 0.041546291 | 70-120 | 20-50 | 38.9-66.7 | 68-122 |
| 23 | Polypropylen (PP) | 910 | 0.032875761 | 180 | 20-50 | 100.000 | 68-122 |
| 24 | Polyvinylchlorid (PVC) | 1400 | 0.050578093 | 80-210 | 20-50 | 44.4-116.7 | 68-122 |
| 25 | Porcelán | 2400 | 0.086705303 | 3 | 0-100 | 1.667 | 32-212 |
| 26 | Bakelit | 1200 | 0.043352651 | 21-36 | 0-100 | 44023.000 | 32-212 |
| 27 | Sklo křemenné | 2700 | 0.097543465 | 3.1 | 0-500 | 1.722 | 32-932 |
| 28 | Iridium (Ir) | 22400 | 0.80924949 | 6.6 | 20 | 3.667 | 68 |
| 29 | Kobalt (Co) | 8800 | 0.317919443 | 12.6 | 20 | 7.000 | 68 |
| 30 | Křemík (Si) | 2330 | 0.084176398 | 2.4 | 20 | 1.333 | 68 |
| 31 | Nikl (Ni) | 8900 | 0.321532164 | 13 | 20 | 7.222 | 68 |
| 32 | Olovo (Pb) | 11340 | 0.409682555 | 29 | 20 | 16.111 | 68 |
| 33 | Platina (Pt) | 21450 | 0.774928642 | 9 | 20 | 5.000 | 68 |
| 34 | uhlík-diamant © | 3514 | 0.126951014 | 1.3 | 18 | 0.722 | 64.4 |
| 35 | uhlík-tuha © | 2220 | 0.080202405 | 2 | 18 | 1.111 | 64.4 |
| 36 | Uran (U) | 1870 | 0.067557882 | | 20 | | 68 |
| 37 | Vápník (Ca) | 1540 | 0.055635902 | 25 | 20 | 13.889 | 68 |
| 38 | Zinek (Zn) | 7130 | 0.257587003 | 29 | 20 | 16.111 | 68 |
| 39 | Zirkon (Zr) | 6530 | 0.235910677 | | 20 | | 68 |
| 40 | Zlato (Au) | 19290 | 0.696893869 | 14.2 | 20 | 7.889 | 68 |
| 41 | Železo (Fe) | 7860 | 0.283959866 | 12.3 | 20 | 6.833 | 68 |
| 42 | Niklový bronz | 8800 | 0.317919443 | 15.7 | 20-220 | 8.722 | 68-428 |
| 43 | elektron | 1810 | 0.065390249 | 26.8 | 20-100 | 14.889 | 68-212 |
| 44 | měď tvářená (99.85% Cu) | 8900 | 0.321532164 | 17.7 | 25-300 | 9.833 | 77-572 |
| 45 | měď tvářená (99.5% Cu) | 8890 | 0.321170892 | 17.5 | 25-300 | 9.722 | 77-572 |
| 46 | Mosaz litá (Ms 60) | 8300 | 0.299855838 | 21 | 20-200 | 11.667 | 68-392 |
| 47 | Mosaz tvářená (63% Cu) | 8430 | 0.304552375 | 19 | 25-100 | 10.556 | 77-212 |
| 48 | ocel nízko legovaná | 7850 | 0.283598594 | 11.4 | 20-100 | 6.333 | 68-212 |

| | | | | | | | |
|----|--|-------|-------------|---------|--------|-----------|---------|
| 49 | | | | 14.5 | 20-600 | 8.056 | 68-1112 |
| 50 | ocel ušlechtilá Cr, Ni | 7800 | 0.281792233 | 15 | 20-100 | 8.333 | 68-212 |
| 51 | | | | 17.3 | 20-400 | 9.611 | 68-752 |
| 52 | ocel ušlechtilá chromová | 7700 | 0.278179512 | 10.5 | 20-100 | 5.833 | 68-212 |
| 53 | | | | 11.5 | 20-400 | 6.389 | 68-752 |
| 54 | silumin | 2650 | 0.095737105 | 18.8 | 20-200 | 10.444 | 68-392 |
| 55 | akrylonitril-butadien-styren kopolymer ABS (Fo | 1045 | 0.037752934 | 0.5-1 | 20-50 | 0.28-0.6 | 68-122 |
| 56 | asfalt | 1200 | 0.043352651 | | | | |
| 57 | azbest | 2450 | 0.088511663 | | | | |
| 58 | azbestová lepenka | 1200 | 0.043352651 | | | | |
| 59 | bakelit | 1270 | 0.045881556 | 21-36 | 0-100 | 44023.000 | 32-212 |
| 60 | beton | 1600 | 0.057803535 | 5.8-6.6 | 0-100 | 3.2-3.7 | 32-212 |
| 61 | cihla | 1600 | 0.057803535 | 3.6-5.8 | 0-100 | 37317.000 | 32-212 |
| 62 | dubové dřevo ve (ve směru vlákná) | 650 | 0.023482686 | 7.6 | 0-100 | 4.222 | 32-212 |
| 63 | dubové dřevo ve (kolmo na vlákná) | 650 | 0.023482686 | 54.4 | 0-100 | 30.222 | 32-212 |
| 64 | jedlové dřevo (ve směru vláken) | 620 | 0.02239887 | 3 | 0-100 | 1.667 | 32-212 |
| 65 | jedlové dřevo (kolmo na vlákná) | 620 | 0.02239887 | 58 | 0-100 | 32.222 | 32-212 |
| 66 | guma tvrdá | 1325 | 0.047868552 | 17-28 | 0-100 | 9.4-15.6 | 32-212 |
| 67 | Surový kaučuk | 940 | 0.033959577 | 37 | 0-100 | 20.556 | 32-212 |
| 68 | papír tvrzený | 1250 | 0.045159012 | | | | |
| 69 | pertinax | 1300 | 0.046965372 | 40 | 0-100 | 22.222 | 32-212 |
| 70 | polyethylen rozvětvený rPe (Bralen) | 930 | 0.033598305 | 230 | 20-50 | 127.778 | 68-122 |
| 71 | polyethylentereftalat PETP | 1350 | 0.048771733 | 70-80 | 20-50 | 38.9-44.4 | 68-122 |
| 72 | polyfenylenoxid PPO/PS (Noryl) | 1080 | 0.039017386 | 60-70 | 20-50 | 38.9-33.3 | 68-122 |
| 73 | polyformaldehyt POM | 1420 | 0.051300637 | 100-140 | 20-50 | 55-78 | 68-122 |
| 74 | polykarbonát PC | 1220 | 0.044075195 | 60-70 | 20-50 | 38.9-33.3 | 68-122 |
| 75 | polymethylmetalkrylát PMMA (Umaplex) | 1180 | 0.042630107 | 70 | 20-50 | 33.333 | 68-122 |
| 76 | polystyren PS (Krasten) | 1050 | 0.03793357 | 60-80 | 20-50 | 38.9-44.4 | 68-122 |
| 78 | polytetrafluorethylen PTFE (Teflon) | 2170 | 0.078396044 | 120 | 20-50 | 66.667 | 68-122 |
| 79 | Sklo jenské | 2600 | 0.093930744 | 3.4-6.3 | 0-100 | 1.9-3.5 | 32-212 |
| 80 | | | | 20,2-34 | 0-500 | 11.2-18.9 | 32-932 |
| 81 | uhli černé | 905 | 0.032695125 | | | | |
| 82 | uhli dřevěné | 182.5 | 0.006593216 | | | | |
| 83 | uhli hnědé | 715 | 0.025830955 | | | | |