Appendix 3

Physical Properties of Liquid Metals

| Metal | Melting point (°C) | Reference temperature (°C) | Density (10 ³ kg/m ³) | Kinematic viscosity (10 ⁻⁶ m ² /s) | Electrical conductivity $(10^6 \Omega^{-1} \text{m}^{-1})$ | Thermal conductivity (Wm ⁻¹ C ⁻¹) |
|--------------------|--------------------------|----------------------------------|--|--|--|--|
| | | | | | | |
| Steel ¹ | 1495 | 1600 | 7.0 | 0.88 | 0.71 | 26 |
| Iron | 1535 | 1600 | 7.0 | 0.80 | 0.72 | 41 |
| Nickel | 1454 | 1500 | 7.9 | 0.62 | 1.2 | _ |
| Copper | 1083 | 1100 | 7.9 | 0.51 | 4.8 | 160 |
| Aluminium | 660 | 700 | 2.4 | 0.60 | 4.1 | 95 |
| Magnesium | 650 | 700 | 1.6 | 0.80 | 3.6 | 81 |
| Tin | 232 | 280 | 6.9 | 0.28 | 2.1 | 31 |
| Lithium | 181 | 200 | 0.51 | 1.2 | 4.0 | 47 |
| Sodium | 98 | 100 | 0.92 | 0.68 | 10 | 89 |
| Woods metal | 70 | 100 | 9.7 | 0.29 | 0.98 | 8.0 |
| Potassium | 64 | 70 | 0.82 | 0.58 | 7.0 | 52 |
| Galium | 30 | 70 | 6.1 | 0.31 | 3.8 | 30 |
| NaK ² | -12 | 40 | 0.87 | 0.86 | 2.6 | 22 |
| Mercury | -38 | 30 | 13.5 | 0.12 | 1.0 | 8.0 |

Notes: ¹ Approximate values for steel with .2% carbon. ² Sodium-potassium eutectic.