Thermal Diffusivity of Selected Materials and Substances

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Material	**Thermal Diffusivity (m^2/s)**	**Thermal Diffusivity (mm^2/s)**
Pyrolytic graphite, parallel to layers	1.22×10^{-3}	1220
Silver, pure (99.9%)	1.6563×10^{-4}	165.63
Gold	1.27×10^{-4}	127
Copper at 25 °C	1.11×10^{-4}	111
Aluminium	9.7×10^{-5}	97
Al-10Si-Mn-Mg (Silafont 36) at 20 °C	74.2×10^{-6}	74.2
Aluminium 6061-T6 Alloy	6.4×10^{-5}	64
Al-5Mg-2Si-Mn (Magsimal-59) at 20 °C	44.0×10^{-6}	44.0
Steel, AISI 1010 (0.1% carbon)	1.88×10^{-5}	18.8
Steel, 1% carbon	1.172×10^{-5}	11.72
Steel, stainless 304A at 27 °C	4.2×10^{-6}	4.2
Steel, stainless 310 at 25 °C	3.352×10^{-6}	3.352
Inconel 600 at 25 °C	3.428×10^{-6}	3.428
Molybdenum (99.95%) at 25 °C	54.3×10^{-6}	54.3
Iron	2.3×10^{-5}	23
Silicon	8.8×10^{-5}	88
Quartz	1.4×10^{-6}	1.4