

Resistivity and Conductivity

Material	Conductivity σ (S/m)	Resistivity ρ (Ω -m)
Conductors		
Silver	6.17×10^7	1.62×10^{-8}
Copper	5.81×10^7	1.72×10^{-8}
Gold	4.10×10^7	2.44×10^{-8}
Aluminum	3.82×10^7	2.62×10^{-8}
Iron	1.03×10^7	9.71×10^{-8}
Mercury (liquid)	1.04×10^6	9.58×10^{-8}
Semiconductors		
Carbon (graphite)	7.14×10^4	1.40×10^{-5}
Pure germanium	2.13	0.47
Pure silicon	4.35×10^{-4}	2.30×10^3
Insulators		
Paper	$\sim 10^{-10}$	$\sim 10^{10}$
Glass	$\sim 10^{-12}$	$\sim 10^{12}$
Teflon	$\sim 3.3 \times 10^{-13}$	$\sim 3 \times 10^{12}$
Porcelain	$\sim 10^{-14}$	$\sim 10^{14}$
Mica	$\sim 10^{-15}$	$\sim 10^{15}$
Polystyrene	$\sim 10^{-16}$	$\sim 10^{16}$
Fused quartz	$\sim 10^{-17}$	$\sim 10^{17}$