

Material Data Sheet: Ruthenium

Ruthenium (Ru)

Version 1.2, Last Updated: 11/21/2025

1. Identification and Purity

Trade Name / Abbreviation	Ru
Chemical Formula	Ru
SCI Part Number	X044000XXXXZ35
Purity	99.90%

2. Physical and Mechanical Properties

Property	Value	Measurement / Units
Density (Bulk)	12.41	g/cm ³
Density (Sintered)	Min 11, Max 12.4, Avg 11.9	g/cm ³
Melting / Sublimation	2,334	°C / °F
Hardness	6.5	Mohs Scale
Mechanical Stress / Modulus	370MPa	MPa / GPa
Band Gap / Electrical Type	—	eV / Semimetal
Configuration	Planar & Rotary	Target Type
Backing Plate Compatibility	Planar: Copper (Cu) or Molybdenum (Mo) / Rotary: Titanium	Compatibility Notes
General Comments	Platinum-group metal, highly resistant to corrosion.	—

SCI Engineered Materials
2839 Charter Street | Columbus, Ohio, 43228
Phone: 614-486-0261 | Fax: 614-486-0912
Email: sales@sciengineeredmaterials.com