

Material Data Sheet: Hafnium

Hafnium (Hf)

Version 1.2, Last Updated: 11/21/2025

1. Identification and Purity

Trade Name / Abbreviation	Hf
Chemical Formula	Hf
SCI Part Number	Z072000XXXXZ35
Purity	99.95% (Zr < 0.5%)

2. Physical and Mechanical Properties

Property	Value	Measurement / Units
Density (Bulk)	13.31	g/cm ³
Density (Sintered)	—	g/cm ³
Melting / Sublimation	2,233	°C / °F
Hardness	5.5	Mohs Scale
Mechanical Stress / Modulus	485MPa	MPa / GPa
Band Gap / Electrical Type	—	eV / Semimetal
Configuration	Planar	Target Type
Backing Plate Compatibility	Copper & Molybdenum	Compatibility Notes
General Comments	Used in control rods for nuclear submarines and high-temperature alloys.	—

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