

Material Data Sheet: High-Density Magnesium Oxide

High-Density Magnesium Oxide (HD-MgO)

Version 1.2, Last Updated: 11/21/2025

1. Identification and Purity

Trade Name / Abbreviation	HD-MgO
Chemical Formula	MgO
SCI Part Number	X012001XXXZ40
Purity	99.99%

2. Physical and Mechanical Properties

Property	Value	Measurement / Units
Density (Bulk)	3.58	g/cm ³
Density (Sintered)	3.33	g/cm ³
Melting / Sublimation	2852	°C / °F
Hardness	5.8–6	Mohs Scale
Mechanical Stress / Modulus	1–4GPa	MPa / GPa
Band Gap / Electrical Type	7.8eV	eV / Semimetal
Configuration	Planar	Target Type
Backing Plate Compatibility	Copper & Moly	Compatibility Notes
General Comments	Used in thin-film coatings and as an insulator.	—

SCI Engineered Materials

2839 Charter Street | Columbus, Ohio, 43228

Phone: 614-486-0261 | Fax: 614-486-0912

Email: sales@sciengineeredmaterials.com