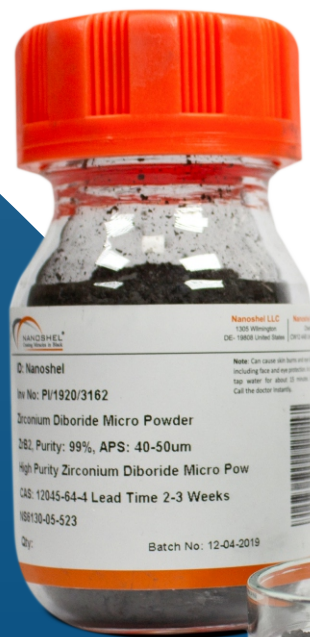


ZIRCONIUM DIBORIDE POWDER

Stock No: NS6130-05-523



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Zirconium Diboride Powder

Zirconium Diboride having a high melting point, high hardness, high stability and good electrical conductivity, thermal conductivity, oxidation resistance and chemical resistance, the overall performance of the composite ceramics with zirconium diboride as the raw material is excellent. The thermal behavior of ZrB₂ has been studied in the past. Zirconium diboride (ZrB₂) is classified as an ultrahigh temperature ceramic (UHTC), all of which have melting temperatures over 3000°C. This class of material performs well in harsh environments, often exceeding the capabilities of traditional engineering materials. ZrB₂ has a high melting temperature (3245°C), high Young's modulus (526 GPa), high hardness (23 GPa), and low theoretical density (6.09 g/cm³). The application of additive manufacturing for UHTCs may provide a cost-effective method for fabrication of complex components for next-generation gas turbines, rocket engines, and hypersonic vehicles.

Quick Facts

Product	:	Zirconium Diboride Powder
Color	:	Gray/black Powder
Stock No	:	NS6130-05-523
CAS	:	12045-64-4
Purity	:	99%
APS	:	40-50µm
Other Metal	:	8500ppm

Technical Specification

Molecular Formula	Molecular Weight	Density	Melting Point
ZrB ₂	112.8 g/mol	6.09 g/cm ₃	3040 °C

Applications

- Ceramic refractory industry
- Nuclear industry
- Space industry
- Military industry

ISO 9001:2015
CERTIFIED COMPANY

2021CE4589C



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2021CE4588M

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