

NS6130-02-212

TITANIUM DIBORIDE

Nanoparticles

Quick Facts

Product	:	Titanium Diboride Nanoparticles
Stock No	:	NS6130-02-212
CAS	:	12045-63-5
Molecular Formula	:	TiB ₂
Form	:	Powder

Purity
99.9%

Technical Specification

Molecular Weight	Density	Melting Point	APS
69.489 g/mol	4.52 g/cm ³	3230 °C	<80nm

Titanium Diboride (TiB₂) is a hard material with high strength and high wear resistance at elevated temperatures. The high density, combined with the high elastic modulus and high compressive strength, have lead to its use in armour components. Due to its high hardness, extreme melting point and chemical inertness, Titanium Diboride (TiB₂) is a candidate for a number of applications. The chemical inertness and good electrical conductivity of TiB₂ have led to its use as cathodes in cells for primary aluminium smelting. It also finds use as crucibles for handling molten metal and as metal evaporation boats.



Application

- ✓ Use in seals, wear parts
- ✓ Cutting tools.
- ✓ Increase strength and fracture toughness of the matrix.
- ✓ Use as crucibles for handling molten metals

TiB₂
APS <80nm



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