



# GNP Graystar

Specialty Materials

## TECHNICAL DATA SHEET

### Titanium Diboride Powder - $TiB_2$

#### Typical Chemistry

Boron (B)	29 - 32 %
Carbon (C)	< 0.5 %
Oxygen (O)	< 1.0 %
Nitrogen (N)	< 0.5 %
Iron (Fe)	< 0.2 %

#### Typical Sizing

	d10	d50	d90
Hot Press Powder	0.5-1.2 $\mu m$	2.5-5.0 $\mu m$	5.0-9.0 $\mu m$

#### Remarks:

- Special sizing available upon request.
- Based on Malvern 2000

#### *Description:*

**GNP Graystar's** Titanium Diboride (chemical formula  $TiB_2$ ) is an extremely hard ceramic material produced by a continuous chemical process to create a high purity powder. These flat, hexagonal powder. These flat, hexagonal platelets have superior hardness, corrosion, and oxidation resistance, and a high melting point (3225°C). Unique among ceramic materials, it is also electrically conductive, allowing it to be formed into complex shapes using EDM.

#### *Applications:*

**GNP Graystar's** Titanium Diboride finds use in aluminum evaporation boats, armor applications, complex sinterable shapes, anti-friction materials cathode materials in aluminum smelting, composites, and more.

[info@GNPGraystar.com](mailto:info@GNPGraystar.com)

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**Northern Office**  
37 John Glenn Dr.  
Amherst, NY 14228  
716.759.6600

[www.GNPGraystar.com](http://www.GNPGraystar.com)

**Southern Office**  
9 Simmonsville Rd.  
Bluffton, SC 29910  
843.815.5600