



Boron Nitride Nanotube – Purified

KEY FEATURES

- Strong mechanical properties
- Thermal conductor
- Electrical insulator
- Large band gap (5.5 eV)
- Structurally stable and chemically inert
- Efficient neutron radiation shielding
- Non-cytotoxic
- Piezoelectric properties

Our unique plasma synthesis process produces high quality BNNT material. This process does not use consumable electrodes or metallic catalysts, and is therefore completely free from metallic contaminants. Our BNNT purified is produced using a proprietary process which removes free Boron. It also offers a high concentration of boron nitride nanotubes with small diameter, high crystallinity and high purity.



TYPICAL PROPERTIES

BNNT Content	> 75 %
Elemental B (free)	< 1 %
Balance	h-BN and BNH derivatives
Average Nanotube diameter	5nm +/- 2nm
Surface area (BET)	> 100 m ² /g
Color	Crystal White
Electrical Conductivity	Large band gap insulator ~5.5 eV
Optical proprieties	Can be made transparent in visible and infrared regions
Thermal Stability	Stable in highly oxidizing (or corrosive) environments, e.g.
	~900 °C in air.
Neutron absorption	767 barns (boron, ninth highest)
Synthesis	Inductively coupled plasma synthesis without metal catalysis

POTENTIAL APPLICATIONS

