



MOMENTIVE
performance materials

PolarTherm® Boron Nitride Powder Grade PT110

Momentive Performance Materials PolarTherm boron nitride (BN) powder grade PT110 is a large single-crystal powder in the typical hexagonal platelet (graphite-like) shape. PT110 possesses an average particle size of $\sim 45 \mu\text{m}$ and a low surface area of $\sim 0.6 \text{ m}^2/\text{g}$.

The high-temperature processing and single-crystal nature of grade PT110 gives it a high thermal conductivity within the particle.

A special grade, PT111, which is screened to remove +200 mesh particles ($> 74 \mu\text{m}$) is also available.

Applications:

Momentive PolarTherm BN powders' unique combination of thermal, electrical, and mechanical properties make them ideal for use in a range of thermal management materials, including:

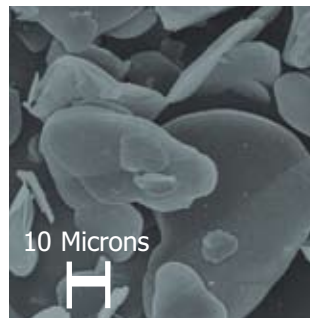
- Gap fillers and underfills
- Potting and molding compounds
- Silicone and other compliant pads
- Liquid encapsulants
- Compounded thermoplastics

PT110 is best suited for use in applications where heat dissipation from a localized source to a large surface is desired.

Momentive Performance Materials produces over 75 standard and custom grades of BN powders to meet a wide range of application requirements, and has over 40 years of expertise in the synthesis and refinement of boron nitride powders.



PT110-1000x.



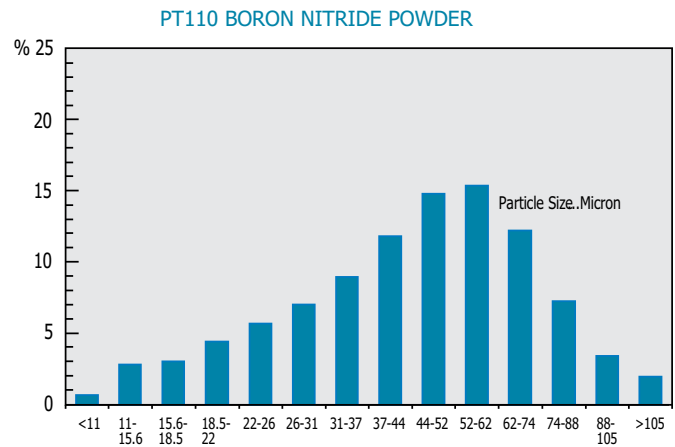
PT110-480x.

General Characteristics of Boron Nitride

- Electrical Insulator
- Low Dielectric Constant and Loss
- High Temperature Stability
- Thermal Conductor
- Lubricious
- Inert
- Non-Wetting

PolarTherm® Boron Nitride Powder Grades PT110

Typical Properties	Grade PT110
Crystal (type)	Hexagonal (Graphitic)
Color	White
Mean Particle Size, μm	45
Crystal Size, μm	~45
Surface Area, m^2/g	0.6
Tap Density, g/cc	0.65
Oxygen, %	0.3
Sol. Borate, %	0.05
Carbon, %	0.03



Elemental

Ca, Si.....	<500 ppm (per element)
Cu, Al, Mg, Fe, K.....	<100 ppm (per element)
Cl, S.....	<50 ppm (per element)
Na.....	<20 ppm
Other Metals.....	<10 ppm each

www.momentive.com

SALES OFFICES	USA	GERMANY	JAPAN	CHINA
	T: 440.878.5700	T: 49.4152.938.300	T: 81.3.5114.3774	T: 86.21.3860.4500
	F: 440.878.5928	F: 49.4152.938.303	F: 81.3.5114.3779	F: 86.21.5079.3736
	E: cs-na.ceramics@momentive.com	E: cs-eur.ceramics@momentive.com	E: cs-jp.ceramics@momentive.com	E: cs-asia.ceramics@momentive.com

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