



Boron Nitride Powder

Grades HCR48, HCJ48

Momentive Performance Materials produces over 70 standard and custom grades of BN powders to meet a wide range of application requirements, and has over 50 years of expertise in the synthesis and refinement of boron nitride powders.

Applications

Momentive Performance Materials' boron nitride (BN) powder grades HCR48, HCJ48, HCM and AC6091 are large, high-density agglomerates, of ~10 µm crystals, with average particle sizes between 175-275 µm and tap densities of ~1g/cm³. These features, combined with low average surface areas, give powders that typically flow readily, withstand harsh processing, and have outstanding thermal characteristics.

These grades are excellent candidates to consider for use in thermal spray applications as well as metal-matrix and ceramic composites for wear applications such as high-performance brake linings. They may also be considered for use in heating elements and adhesives, pastes, and potting compounds with increased thermal conductivity and high electrical resistivity.

Key Features & Typical Benefits

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

Typical Physical Properties ¹	HCR48	HCJ48
Crystal (Type)	Hexagonal (Graphitic)	Hexagonal (Graphitic)
Color	White	White
Mean Particle Size µm	250	275
Crystal Size µm	10	10
Surface Area m ² /g	2.6	1.3
Tap Density g/cm ³	1.1	0.9
Oxygen %	2.5	0.3
Soluble Borates %	3	0.1
Carbon %	0.2	0.1

HCR48

HCR48 has an average particle size of 250 µm and is the highest density (hardest) grade offered by Momentive Performance Materials. It has higher oxygen and soluble borate levels than most grades, which limits its performance in high-temperature (>550° C) applications.

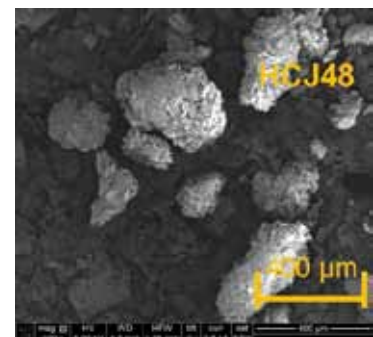
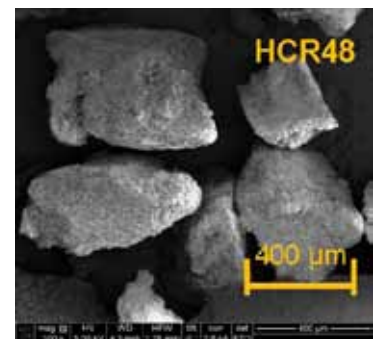
HCJ48

HCJ48 has an average particle size of 275 µm and offers higher purity than HCR48 with a slightly lower density.

Typical Screen Sizing Analysis (%) ¹	HCR48	HCJ48
+20	0	0
-20/+60	58.9	72.9
-60/+100	21.8	13.2
-100/+150	11.5	5.4
-150/+200	4.8	3.2
-200/+325	1.3	2.8
-325	1.8	2.6

Typical Trace Element Content ¹ (ppm, per element)	
Ca, Si	<500
Cu, Al, Mg, Fe, K	<100
Cl, S	<50
Na	<20
Other Metals	<10

¹ Typical data are average and actual results may vary. Typical data shall not be used as product specifications.



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LOCATION	EMERGENCY SERVICE PROVIDER	EMERGENCY CONTACT NUMBER
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China	NCEC	+86.10.5100.3039
Latin America (except Brazil)	NCEC	+44(0) 1235239670
Brazil	SOS Cotec	08000111767 or 08007071767
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