



# Boron Nitride Powders

Grades HCM and AC6091

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.

## Potential Applications

Momentive Performance Materials' boron nitride (BN) powder grades 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/cm<sup>3</sup>. These features, combined with low average surface areas, may give powders the ability to 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 metalmatrix 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 <sup>1</sup>	HCM	AC6091
Crystal (Type)	Hexagonal (Graphic)	Hexagonal (Graphic)
Color	White	White
Mean Particle Size µm	175	125
Crystal Size µm	10	10
Surface Area m <sup>2</sup> /g	2.0	1.4
Tap Density g/cm <sup>3</sup>	1.0	1.0
Oxygen %	0.3	0.3
Soluble Borates %	0.1	0.1
Carbon %	0.03	0.05

## Boron Nitride Powder Grades HCM and AC6091

### HCM

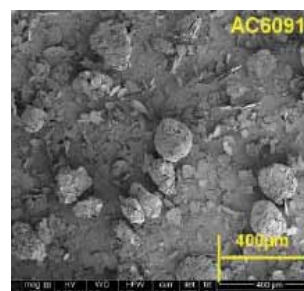
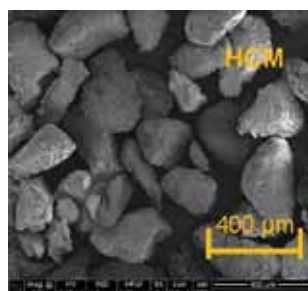
HCM has an average particle size of 175 µm and is processed for outstanding purity, making it an excellent candidate to consider for the most demanding of applications. HCM also has a more uniform particle size distribution and rounded particles due to its unique processing.

### AC6091

AC6091 has a high tap density and lower surface area with a smaller average particle size of 125µm.

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

Typical Screen Sizing Analysis (%) <sup>1</sup>	HCM	AC6091
+20	0	0
-20/+60	0.9	2.6
-60/+100	78.8	6.0
-100/+150	12.7	67.1
-150/+200	3.5	16.4
-200/+325	1.6	1.3
-325	2.4	6.4



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

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