MOMENTIVE
performance materials

Boron Nitride Powder Grades HCV, AC6003, and AC6097

Momentive Performance Materials boron nitride (BN) powders of grades HCV, AC6003, and AC6097 are agglomerates composed of submicron hexagonal turbostratic crystals. The mean particle size for these fine powders is 7 – 11 µm, and over 95% of the particles pass through a -325 mesh.

As initial synthesis powders, these grades provide an economical alternative to higher-purity grades such as HCP and possess a smaller hexagonal platelet structure which provides good nucleation and lubrication qualities.

HCV

Grade HCV is Momentive Performance Materials "basic" grade of BN, and serves as a starting-block for the production of many advanced materials.

AC6003

Grade AC6003 is a more processed form of HCV, resulting in a lower surface area and oxygen content and broader particle size distribution.

AC6097

AC6097 has been processed to create a cleaner surface than HCV and AC6003.

Applications

These grades are commonly used in paints, refractory coatings and mold/die release agents for their release properties and inertness to molten metals and salts. They are also hot-pressable materials which can be used in manufacturing shapes and composites where good thermal conductivity, high electrical resistivity and machinability are desired.

Grade AC6097

specifically provides excellent nucleation in plastics applications for foaming and solidification.

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.

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

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Boron nitride powder

Grades HCV, AC6003, and AC6097

General Characteristics of Boron Nitride

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

Typical Properties AC6097	Grade HCV	Grade AC6003	Grade
Crystal (type)	Hexagonal (Turbostratic)	Hexagonal (Turbostratic)	Hexagonal (Turbostratic)
Color	White	White	White
Mean Particle Size, µm (agglomerates)	7 – 11	7 – 11	7 – 11
Crystal Size, µm	0.1	0.5	0.5
Surface Area, m2/g	40	29	31
Tap Density, g/cc	0.5	0.35	0.5
Sol. Borate, %	0.3	0.2	0.3
Carbon, %	0.05	0.03	0.05

ISO 9001 Certified
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