

**AL 501
Aluminum Nitride Powder**

Catalog #	
Formula	AlN
Purity	99.9%
Particle size	7-10-micron APS

Chemistry		
Elements	Specification	Typical Results
Iron	0.05 max	0.02
Silicon	0.05 max	0.007

7-10-micron APS		
	D50	D97
Microns	7 – 10-micron aps	20-micron max
Surface Area, m2/gm	2.3 – 3.5	

Properties	
Thermal Conductivity (sintered)	70-180 W/mK*
Dielectric Constant	8.2-9.0
Color	Gray
Density	3.26 g/cm3
Sublimes @	2450 degrees C
Crystal Structure	hexagonal

- Chemical:** Exhibits good resistance to several corrosive materials and does not react with most metals such as Al, Cu, Li, U, ferrous and some super alloys. It is also resistant to many molten salts including carbonates, chlorides and cryolite.
- Thermal:** 8 to 10 times more thermally conductive than alumina, and its conductivity will not deteriorate with rising temperatures. With a relatively low thermal expansion coefficient, AlN structures meet thermo-mechanical requirements for many electronic device components.
- Electrical:** High dielectric strength and low loss tangent makes it high performance insulator for many semi-conductor and power electronic applications.

- **Mechanical:** Because of its covalent nature, AlN is mechanically strong, durable and has high wear resistance

Information presented herein is believed to be accurate and reliable but is not intended to meet any specification and does not imply any guarantee or warranty by Atlantic Equipment Engineers. For more information and assistance, please call (201) 384-5606.

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