

RF Series - Product Datasheet

ThruTek Applied Materials produces over 100 standard and customized grades of AlN powders to meet a wide range of application requirements and has over 14 years of expertise in research and development of Aluminum Nitride powders.

RF Series

Spherical AlN powder makes it possible to achieve very high thermal conductivity in fillers.

RF Series spherical aluminum nitride powders have high purity spherical shaped particles designed for excellent flowability and loading.

The larger mean particle size and spherical shape not only provides a higher filling rate but also much improved thermal conductivity.

Key Applications

RF Series can be used in a variety of silicone polymers and epoxy resins to develop highly thermal conductive products such as adhesives, gels, grease, pads and tapes, etc.

Features & Benefits

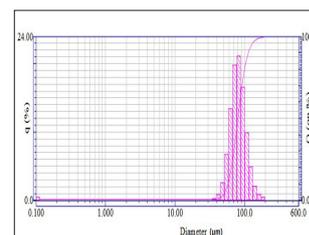
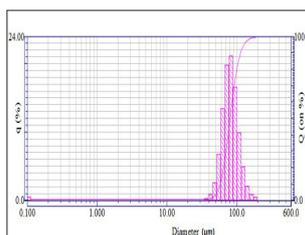
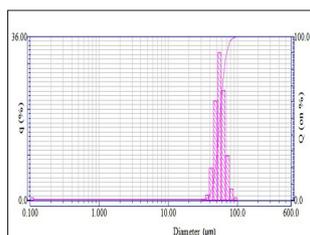
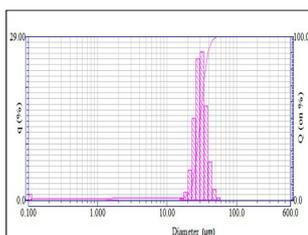
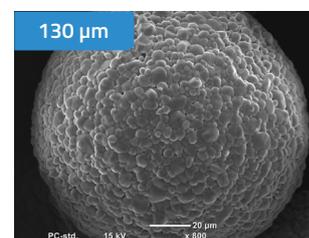
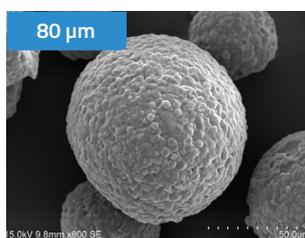
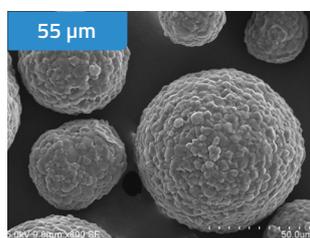
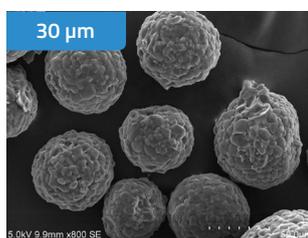
- Spherical Shaped Particles
- Sharp particle size distribution
- Low impurities
- Surface Coated variants available
- Water Resistant variants available
- Customizable PSD and surface coating
- Customized D50 sizes larger than 130 um available on request

Properties		Available Grades			
		AlN300RF	AlN550RF	AlN800RF	AlN13tRF
Particle Type		Sintered Agglomerated			
Particle Shape		Spherical			
Surface Coating		None			
Particle Size	D10	25 μm	40 μm	58 μm	100 μm
	D50	30 μm	55 μm	80 μm	130 μm
	D90	38 μm	72 μm	108 μm	170 μm
Specific Surface Area (SSA)		< 0.13 m ² /g	< 0.067 m ² /g	< 0.05 m ² /g	< 0.03 m ² /g
Impurities	Ca	< 100 ppm			
	Fe	< 150 ppm			
	Si	< 200 ppm			
	Pb	< 10 ppm			
	C	< 100 ppm			
	O	< 2.5 wt%			
Anti-Hydrolysis	Treatment	No water resistance treatment applied			
	Rating	Without any treatment AlN powder will hydrolyze in water in < 8 hours			
Application		Ideally used as main filler in epoxy resins or silicone polymers			

Chemical Name Aluminum Nitride | Formula AlN | CAS Number 24304-00-5

Form Powder | Color Gray | Purity \geq 97% | Melting Point > 2200 °C | Density 3.26 g/cm³

SEM Photo & Particle Size Distribution



Disclaimer: Data represented in this document are typical values only and not guaranteed. ThruTek reserves the right to make changes to the product information contained herein without notice.