



Linkoptik Application Note #2

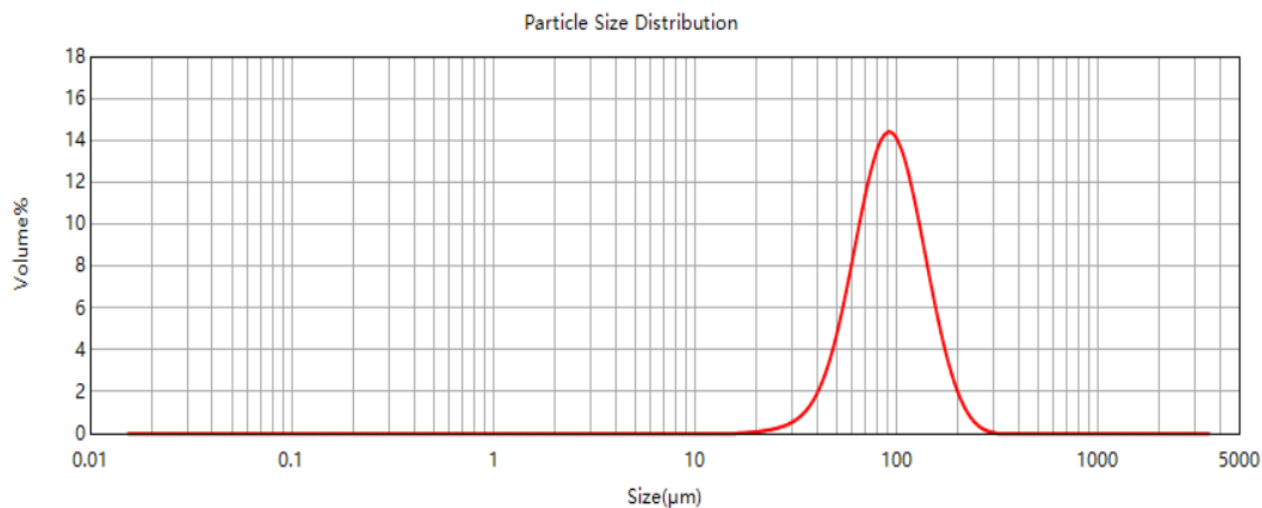
Brown Fused Alumina – LT3600 Plus and Hydrolink Wet Sample Dispersion Unit

Brown fused aluminum oxide (Al_2O_3), commonly referred to as brown fused alumina, is produced from bauxites in electric arc furnaces. It is a high-strength, tough, durable material with good corrosion and wear resistance, making it an excellent abrasive. It is used in grinding, blasting, polishing, lapping, finishing and a variety of other industrial applications.¹ Because brown fused alumina is sold in different sizes or grits for specific applications, particle size and particle size distribution are critical parameters for quality control and marketing.

A sample of brown fused alumina was analyzed with the LT3600 Plus and Hydrolink Wet Sample Dispersion Unit using a pump speed of 2000 RPM and a stirrer speed of 600 RPM.

Analysis conditions:

Particle RI	Absorption	Dispersant	Dispersant RI	Obscuration	Pump	Stirrer
1.76	0.1	Water	1.33	8-15%	2000 RPM	600 RPM



	D10	D50	D90
Expected Results	Not provided	91.25 +/- 2.75 μm	Not provided
LT3600 Plus Results	53.167 μm	90.522 μm	150.980 μm

As can be seen, the LT3600 Plus measured a DV 50 well within the expected measurement range for the brown fused alumina sample.

¹ Washington Mills, <http://www.washingtonmill.com/products/brown-fused-aluminum-oxide>
Cutting Edge Technology Superabrasive and Abrasive Powders and Products, <http://www.ukabrasives.com/aluminum-oxide.html>
Carborundum Universal Limited, <https://www.cumi-murugappa.com/emd/brown-fused-alumina/>