



Linkoptik Application Note #1

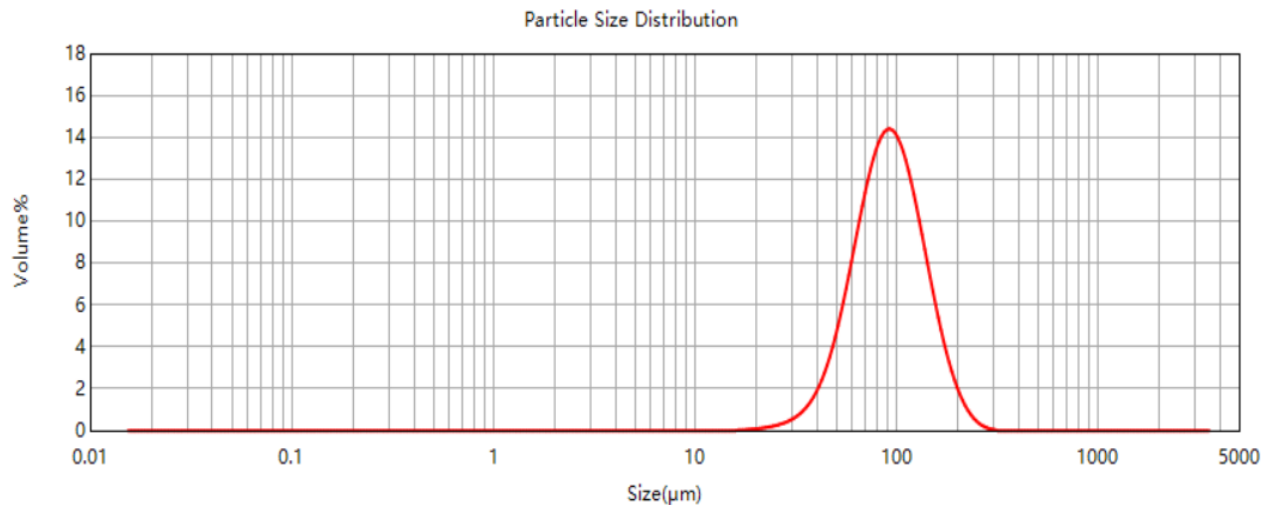
Brown Fused Alumina – LT2200 and Hydrolink SE Wet Sample Dispersion Unit

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 LT2200 Plus and Hydrolink SE Wet Sample Dispersion Unit. The results were then compared to the D50 value provided by the supplier.

Analysis conditions:

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



Measurement results:

	D10	D50	D90
Expected Results	Not provided	91.25 +/- 2.75 μm	Not provided
LT2200 Plus Results	54.14 μm	91.81 μm	153.41 μm

The LT2200 provided a DV 50 well within the expected measurement range for the brown fused alumina sample.

¹Washington 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/>