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## TECHNICAL DATA SHEET

# ZINC OXIDE GRADE 103

### Description

Our Zinc Oxide product is a brilliant white powder manufactured by the French (Indirect) Process.

Grade 103 offers very high purity, large particle size, and the lowest m<sup>2</sup>/g surface area ("SA") available in high quality French Process product.

Grade 103 replaces grades Zinc Oxide LLC 800XL, KADOX 930, and KADOX XX503R

Grade 103 is also a drop in substitute for American (Direct) Process zinc oxide in most applications.

This grade is used where a very low impurity large particle size zinc oxide is required such as in electronic soft ferrites, varistors, ceramics, and paint and coatings.

Grade 103 meets GMP 21CFR110, is USFDA approved as GRAS (Generally Recognized As Safe) at 21cfr182.8991 and is authorized by the USFDA for use wherever GRAS is approved including food contact in rubber, plastics, and coatings.

Grade 103 also meets the requirements of ASTM specification D79, 2002/95/EC Restriction of Hazardous Substances Directive (RoHS) for heavy metals and Waste Electrical and Electronic Directive (WEEE), and other regulations where high quality zinc oxide is required.

This product is also available in pelleted form (grade 103P), and with processing aid/surface treatment (grade 103T).

### REPRESENTATIVE CHEMICAL PROPERTIES

Chemical Analysis (%)	Typical Limit**	Nominal	Test Method
Zinc Oxide (ZnO) ignited basis	99.8 min	99.9	Supplier (calculation)
Lead (Pb) *	0.003 max	0.002	ASTM D4075
Cadmium (Cd) *	0.002 max	0.0003	ASTM D4075
Iron (Fe)	0.002 max	0.0003	ASTM D4075
Copper (Cu)	0.001 max	0.0001	ASTM D4075
Loss at 110°C (moisture)	0.25 max	0.15	ASTM D280

### REPRESENTATIVE PHYSICAL PROPERTIES

Surface Area (m <sup>2</sup> /g) *	2 - 4	3.2	ASTM D4315
Particle Size (microns)	0.2 - 0.6	0.3	Supplier (calculation)
Fineness retained on 325 mesh (%) *	0.02 max	0.005	ASTM D185
(Fineness passing through 325 mesh (%))	99.98 min	99.995	ASTM D185)
Specifications			ASTM D79

\* Regular test item for process & product control and included on COA. Other items are for reference only.

\*\* Zochem can produce zinc oxide to customer specifications superseding the above table.

**Standard Packaging:** 50 lb. Kraft paper bags on 2,000 to 2,500 lb net wt pallet, or 2,000 lb FIBC.