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TREIBACHER INDUSTRIE AG
Innovation is our tradition.

Zirconia – Zirconiumdioxide – High Purity

Characteristics

- Zirconiumdioxide ZrO_2 in high purity grade.
- Melting point: 2.900°C (5.252 °F).
- Molecular weight 123.22 g/mol.
- Appearance white to pearl-white powder.
- Radioactivity: <1 Bq/g.

Application

- Synthesis of Yttria Stabilised Zirconias.
- Investment Casting Facecoats.
- Spray powders.
- High performance ceramics.

Chemical Analysis

Grade	High Purity
ZrO_2	Min. 99.95 [%]

TREO: Total Rare Earth Oxide.

Purity

Cl	<200 ppm	Sm_2O_3, La_2O_3, CeO_2	<10 ppm
Si	<100 ppm	P_6O_{11}, Nd_2O_3, Tb_4O_7	<10 ppm
Al, FE, S	<50 ppm	Eu_2O_3, Gd_2O_3, Dy_2O_3	<10 ppm
Ca, Mg, Ti	<30 ppm	Ho_2O_3, Er_2O_3, Tm_2O_3	<10 ppm
Cr, Mn, Co, , Ba, Na, K, B, U238	<10 ppm	Yb_2O_3, Lu_2O_3, ThO_2	<10 ppm
Pb	<5 ppm	Y_2O_3	<10 ppm
Bi	<1 ppm	ThO_2	<5 ppm

Particle Size Parameters

Standard	Micronised	Fused
D50: 2-10µm	D50: < 2µm	Customised
D100: <100µm	D100: <15µm	

All particle size analysis with laser diffraction method, Microtrac X100, SRA mode or FRA mode.

Physical Parameters

Surface Area	Customised	from 1 to 20 m^2/g	BET
Apparent Density	min 5.6 g/cm^3		
XRD (phase analysis)	Available	On Request	
LOI	<1 wt[%]		

Packaging

- 20 kg, 25 kg and 50 kg in pails
- 1000 kg and 500 kg in sacks

Maximum Lot Size

- 1.500 kg

Inspection certificate according to DIN EN 10204.3. 1. B.
Material manufactured in accordance with ISO 9001