

Zirconia – Zirconiumdioxide – Standard Grade

Characteristics

- Zirconiumdioxide ZrO_2 in standard 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 Ytria Stabilised Zirconias.
- Investment Casting Facecoats.
- Spray powders.
- High performance ceramics.

Chemical Analysis

Grade	Standard Grade
ZrO_2	Min. 99.50 [%]

TREO: Total Rare Earth Oxide.

Purity

Cl, Si	<500 ppm	Sm_2O_3 , La_2O_3 , CeO_2	<50 ppm
Fe, S	<200 ppm	$P_6 O_{11}$, Nd_2O_3 , Tb_4O_7	<50 ppm
Ca, Mg, Na, K, Al, Ti	<100 ppm	$Eu_2 O_3$, $Gd_2 O_3$, Dy_2O_3	<50 ppm
V, Cr, Mn, Co, Ni, Cu, Zn, , Sn	<50 ppm	$Ho_2 O_3$, $Er_2 O_3$, Tm_2O_3	<50 ppm
Ba, Pb, B,	<30 ppm	$Yb_2 O_3$, $Lu_2 O_3$, ThO_2	<50 ppm
U (238)	<5 ppm	$Y_2 O_3$	<50 ppm
Bi	<3 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