

## YTTRIUM OXIDE Y203

### Properties

White powder, insoluble in water, soluble in acids

### Application

- Used in the manufacture of mono and polycrystalline ferrite materials for the electronics industry
- Synthetic gemstones
- Red colour in phosphors for colour television tubes
- Increasing the refractive index and reducing light dispersion in glass
- Manufacture of special optical glass, such as camera lenses
- Optical systems and lenses for extreme temperatures, e.g. in aerospace engineering
- Refractory and conductive ceramics
- Oxygen sensors for emission control
- Manufacture of ceramic pigments
- Pole impregnation in batteries, accumulators and lasers



### Chemical analysis

	99,9 %	99,99 %	99,999 %	99,9999 %
<b>Material base</b>				
TREO*	min. 99,0 %	min. 99,0 %	min. 99,0 %	min. 99,0 %
Loss on ignition, 1000°C	max. 1,0 %	max. 1,0 %	max. 1,0 %	max. 1,0 %
Fe <sub>2</sub> O <sub>3</sub>	< 50 ppm	< 20 ppm	< 5 ppm	< 2 ppm
CaO	< 60 ppm	< 30 ppm	< 10 ppm	< 5 ppm
Na <sub>2</sub> O	< 60 ppm	< 30 ppm	< 10 ppm	< 5 ppm
SiO <sub>2</sub>	< 500 ppm	< 250 ppm	< 50 ppm	< 25 ppm
Al <sub>2</sub> O <sub>3</sub>	< 250 ppm	< 150 ppm	< 50 ppm	< 25 ppm
K <sub>2</sub> O	< 60 ppm	< 30 ppm	< 10 ppm	< 5 ppm
<b>TREO base</b>				
Y <sub>2</sub> O <sub>3</sub>	min. 99,9 %	min. 99,99 %	min. 99,999 %	min. 99,9999 %
Total remaining RE-Oxides	max. 0,1 %	max. 100 ppm	max. 10 ppm	max. 1 ppm

\*TREO = Total Rare Earth Oxide

### Physical parameters

PSD d50	(Microtrac)	2 – 10 µ
BET		2 – 12 m <sup>2</sup> /g

### Packing

- Plastic boxes with 1, 5 or 10 kgs net
- Plastic or steeldrums with 25 kgs resp. 50 kgs net
- BigBags with 500 resp. 1.000 kgs net
- Other packing on request