GNPGraystar
Specialty Materials

TECHNICAL DATA SHEET
Calcined Yttrium Oxide

Typical Chemistry

	99.9 %	99.99%	99.999 %
In Material			
TREO *	≥ 99.0	≥ 99.0	≥ 99.0
LOI (1000°C/2 hrs) - %	≤ 1.0	≤ 1.0	≤ 1.0
Iron Oxide (Fe_2O_3) - ppm	< 50	< 20	< 5
Calcium Oxide (CaO) - ppm	< 60	< 30	< 10
Sodium Dioxide (Na_2O) - ppm	< 60	< 30	< 10
Silicon Dioxide (SiO_2) - ppm	< 500	< 250	< 50
Aluminum Oxide (Al_2O_3) - ppm	< 250	< 150	< 50
Potassium Dioxide (K_2O) - ppm	< 60	< 30	< 10

In 100 TREO

Yttrium Oxide (Y_2O_3)	≥ **99.9**	≥ **99.99%**	≥ **99.999 %**
Total Remaining RE-Oxides - %	≤ 0.1	≤ 0.01	≤ 0.001

* TREO - Total Rare Earth Oxides

Typical Physical Characteristics

	≥ **99.9**	≥ **99.99%**	≥ **99.999 %**
PSD (d50) - microns	2 - 10	2 - 10	2 - 10
Surface Area (BET) - m^2/g	2 - 12	2 - 12	2 - 12

Description:

GNPGraystar's Yttrium Oxide is a white powder, insoluble in water, but soluble in acids. It is typically used in the manufacturing of mono and polycrystalline ferrite materials in the electronic industry, for the synthesis of gemstones, as a glass additive to increase the refractive index and reduce light dispersion in glass, such as camera lenses, for optical systems and lenses for extreme temperatures, for refractory and conductive ceramics, oxygen sensors for emission control, for the production of ceramic pigments, as well as pole impregnation in batteries, lasers, and accumulators.

info@GNPGraystar.com

Rev. 02/2020

Northern Office
37 John Glenn Dr.
Amherst, NY 14228
716.759.6600

www.GNPGraystar.com

Southern Office
9 Simmonsville Rd.
Bluffton, SC 29910
843.815.5600