



# GNP Graystar

Specialty Materials

## TECHNICAL DATA SHEET

### Fused Yttria-Stabilized Zirconia

#### Typical Chemistry & Properties

	GNP5YD-b	GNP7YD-a	GNP7YD-b	GNP7YD-aQ
% ZrO <sub>2</sub>	93	90	90	90
% Y <sub>2</sub> O <sub>3</sub>	4.8-5.6	7-8	7-8	7-8
% Al <sub>2</sub> O <sub>3</sub> max.	0.3	0.1	0.3	0.1
% SiO <sub>2</sub> max.	0.4	0.4	0.4	0.4
% Fe <sub>2</sub> O <sub>3</sub> max	0.1	0.1	0.1	0.1
% TiO <sub>2</sub> max.	0.2	0.1	0.2	0.1
% CaO	0.2	0.2	0.2	0.1
Stabilization	50% min.	75-85%	75-85 %	98% min.
Density (g/cm <sup>3</sup> )	5.8 min.	6.1 min.	6.0 min.	6.1 min.
Color	Yellow	Yellow	Yellow	Yellow

  

	GNP7YD-cQ	GNP9YD-b	GNP13YD-a	GNP132YD-b
% ZrO <sub>2</sub>	90	88	84	84
% Y <sub>2</sub> O <sub>3</sub>	7-8	8.8-9.8	13-14	13-14
% Al <sub>2</sub> O <sub>3</sub> max.	0.1	0.2	0.1	0.2
% SiO <sub>2</sub> max.	0.4	0.4	0.4	0.4
% Fe <sub>2</sub> O <sub>3</sub> max	0.1	0.1	0.05	0.1
% TiO <sub>2</sub> max.	0.1	0.2	0.05	0.2
% CaO	0.5	0.2	0.1	0.2
Stabilization	95% min.	85% min.	95% min.	95% min.
Density (g/cm <sup>3</sup> )	6.0 min.	6.1 min.	6.2 min.	6.2 min.
Color	Yellow	Yellow	Yellow	Yellow

*\*Particle Size can be customized for all the above products.*

#### Description:

GNP Graystar's Fused Yttria-Stabilized Zirconia is produced from special fusion of high purity zirconia with various amounts of yttrium oxide.

#### Applications:

GNP Graystar's Fused Yttria-Stabilized Zirconia is used for refractories, thermal spray coatings, plasma spraying, oxygen permeable membranes, ceramic rings, and many other applications.

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