



# GNP Graystar

Specialty Materials

## TECHNICAL DATA SHEET

### Magnesia-Stabilized Zirconia Powder

#### Typical Chemistry & Properties

	GNPZ01 Powder	GNPZ02 RTP
% ZrO <sub>2</sub> + HfO <sub>2</sub>	96	96
% MgO	3.2	3.2
% Al <sub>2</sub> O <sub>3</sub> max.	0.02	0.02
% SiO <sub>2</sub> max.	0.2	0.2
% Fe <sub>2</sub> O <sub>3</sub> max.	0.02	0.02
% TiO <sub>2</sub> max.	0.1	0.1
% CaO	0.02	0.02
Moisture	0.2	0.2
L.O.I.	0.2	0.3
Color	Yellow	Yellow

#### Typical Physical Properties

Sintered Density	5.75 g/cm <sup>3</sup>
Vickers Hardness	1275 MPa
Fracture Strength (K1C)	6.8 MPa x m <sup>1/2</sup>
Sintering Shrinkage	19 %
Sintering Temperature	1700°C

#### Description:

This Mg-PSZ materials is available in powder and ready-to-press spray dried powder. GNPZ01 is the original powder and the GNPZ02 is the spray granulated ready-to-press powder to meet different customers' needs.

#### Applications:

GNP Graystar's Mg-PSZ is best used for textile ceramic pieces, high temperature steam valves, wire drawing dies, pulley cones, thermocouple protection tubes, oxygen probe protection tubes, etc.

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