



**Wunder-Mold** 790 Eubanks Drive . Vacaville, California 95688 USA  
Tel 707-448-2349 . Fax 707-448-6045 . [www.wundermold.com](http://www.wundermold.com)  
**CREATING QUALITY STANDARDS FOR THE INDUSTRY**

## Ceramic Injection Molding

### Precision Injection Molding

#### **WM-YTZP-B 3 mol% Partially Stabilized Black Zirconia**

WM-YTZP-B is a Black-colored YTZP material where the properties of a YTZP material is needed but a Black color is needed for the components end use. Typical uses for components made with this material include but are not limited to : Parts used in machines that use vision systems and parts where the color and finish of this material is needed for aesthetic reasons.

#### Physical Properties

Color	-	Black
Sintered Density	-	6.0 g/cc
Bending Strength	-	1200 MPa
Compressive Strength	-	2500 MPa
Fracture Toughness (NB)	-	10.0 MPa <sup>1/2</sup>
Hardness	-	1200 (HV10)

#### Chemical Properties

ZrO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub> + Colorant	-	> 99.9 wt%
Y <sub>2</sub> O	-	4.90 to 5.10 wt%
SiO <sub>2</sub>	-	≤ 0.05 wt%

These numbers are typical values for the properties listed. Depending on the end shape and environment, these values may be slightly different. Any questions and or for recommendations on how to design your Ceramic Injection Molded Parts, please contact our Design Engineers at Wunder Mold.

Email: [sales@wundermold.com](mailto:sales@wundermold.com)