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**CREATING QUALITY STANDARDS FOR THE INDUSTRY**

## Ceramic Injection Molding

### Precision Injection Molding

#### **WM-998-AI 99.8% Aluminum Oxide Ceramic**

WM-998-AI is a 99.8% pure Aluminum Oxide Ceramic. It has adequate strength coupled with excellent hardness and wear resistance. This material is NSF Approved for industries that require approval. Components which would typically use WM-998-AI include but are not limited to are: Fluid Metering, Semiconductor Tooling Components, Medical Components, Wear resistant parts, Aerospace Applications and Food and Beverage Applications.

#### Physical Properties

Color	-	White-Ivory
Sintered Density	-	≥3.90 g/cc
Bending Strength	-	450 MPa
Compressive Strength	-	2000 MPa
Fracture Toughness (NB)	-	4.0 MPa <sup>1/2</sup>
Hardness	-	2000 (HV10)
Thermal Conductivity	-	30 W/m*K

#### Chemical Properties

Al <sub>2</sub> O <sub>3</sub>	-	> 99.8 wt%
MgO	-	≤ 0.12 wt%
Na <sub>2</sub> O	-	≤ 0.10 wt%
SiO <sub>2</sub>	-	≤ 0.07 wt%
CaO	-	< 0.03 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)**