



**IJ Research, Inc.**

ISO 9001:2000 registered. Established in 1988.

# **IJ Research Material Code Number #1129**

## **Electrically Conductive Ceramic**

IJ Research, Inc. offers non-magnetic and electrically conductive ceramics since 1997 for various applications. It is glass sealable, metallizable as well as brazable using specialty materials developed by IJ Research.

<b>Use temperature:</b>	<b>As high as 1,200°C in a controlled atmosphere</b>
<b>Hardness:</b>	<b>9+ on Mohs scale</b>
<b>Electrical Resistivity:</b>	<b>10-20 microhm-cm at RT 60 microhm-cm at 1,000°C</b>
<b>Linear TCE:</b>	<b><math>80 \times 10^{-7} / ^\circ\text{C}</math> (RT-1,000°C)</b>
<b>Thermal Conductivity:</b>	<b>25-100 W/m<sup>2</sup>K</b>
<b>Flexural Strength:</b>	<b>50,000 psi at RT</b>
<b>Tensile Strength:</b>	<b>80,000 psi at RT</b>
<b>Compression Strength:</b>	<b>250,000-700,000 psi at RT</b>
<b>Solubility in Acid:</b>	<b>Insoluble in HCl and HF. Reacts with hot H<sub>2</sub>SO<sub>4</sub> and HNO<sub>3</sub></b>
<b>Wear Resistance:</b>	<b>Excellent</b>

*Note: Information above is not necessarily measured. Many of the properties are based on calculations. There is no accuracy on the data above although the data shall be close enough for the first approximations.*