

## TECHNICAL DATA SHEET

# Precision High performance Ceramic

**General notes:**

- » **Partially stabilized zirconia (PSZ)**
- » both hard and fracture tough
- » fine grain size: excellent surface finish and able to hold sharp edge
- » relatively low density
- » no open porosity
- » good abrasion and wear resistance
- » superior flexural strength and fracture toughness
- » good thermal properties and good temperature stability
- » extreme corrosion resistance, nearly chemically inert
- » electrically insulative until 400-500°C

## Mechanical properties

Flexural modulus	<b>200 GPa</b>
Flexural strength	<b>1200 MPa</b>
Vickers Hardness	<b>12 GPa</b>

## Thermal properties

Thermal conductivity	<b>2.0 W/m K</b>
Coef. of lin. therm expansion:	<b>10.0 E-6/K</b>
Max working temperature	<b>1200°C</b>

## Electrical properties

Volume resistivity	<b>&gt;10<sup>12</sup> Ohm cm</b>
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## Other properties

Density	<b>6.00 g/ccm</b>
Open porosity	<b>0.0%</b>
Water absorption	<b>0.0%</b>
Color	<b>white</b>

This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-tek SA declines all responsibility from an improper use of the product described in this document.