

## Advanced Ceramic Products, LLC (ACP)

# Si<sub>3</sub>N<sub>4</sub> Datasheet

### Typical Properties of Hipped Silicon Nitride Low Doped with 2.5 W/O Yttria

Density	3.2 g/cm <sup>3</sup>
Hardness HV <sub>5N</sub>	18.5 GPa
Flexural Strength	
3-P, RT	950 MPa
4-P, 1 350 °C	800 MPa
Tensile Strength ASCERA	480 MPa
Compressive Strength	4500 MPa
Fracture Toughness CVNB	6.0 MPa m <sup>1/2</sup>
Young's Modulus	310 GPa
Poisson's Ratio	0.27
Coefficient of Thermal Expansion 20 to 800 °C	3.7x10 <sup>-6</sup> K <sup>-1</sup>
<u>Thermal Conductivity, RT</u>	<u>32 W m<sup>-1</sup> K<sup>-1</sup></u>

The information contained in this document is believed to be accurate and reliable, but is presented without guarantee or warranty on the part of Advanced Ceramic Products LLC.

