

DATA SHEET

Silicon Nitride

	GPSSN	GPSSN-HIP	HIPSN-High Purity	Units
Colour	Grey, Black	Grey	Grey	
Manufacturing Route	Gas Pressure Sintering	Hot isostatic pressed	Hot Isostatic pressed	
Bulk Density	>3.21	3.21 – 3.23	3.20	g/cm ³
Porosity	0	0	0	%
Bending Strength	>650	>850	>800	MPa
Compressive Strength	>3,000	>3,000	> 3,000	MPa
Young Modulus	320	320	325	GPa
Hardness Vickers	16	16	16	GPA
CTE (20°C-1000°C)	3.2	3.2	3.2	x10 ⁻⁶ K ⁻¹
Thermal Conductivity at 20°C	25.0	28.0	30.0	Wm ⁻¹ K ⁻¹
Thermal Shock Resistance	535	535	600	°C
Sintering Aid	Alumina/ Yttria	Alumina/ Yttria	Alumina/ Yttria	

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Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in any way whatsoever and should only be treated as indicative and for guidance only.