

Material Type: Si₃N₄
MECHANICAL & PHYSICAL CHARACTERISTICS (TYP.)

Density		[g/cm ³]	3.24
Porosity		[%]	0
Bending strength (RT)		[MPa]	1150
Webulls modulus		[-]	15
Compressive strength		[MPa]	4275
Young's modulus (static)		[GPa]	300
Poisson's ratio		[-]	0.28
Fracture toughness		MPa*m ^{1/2}	5.9
Hardness HV10		[-]	14.4
Maximum application temperatur		[°C]	1200
Linear coefficient of expansion	40 - 400°C	[10 ⁻⁶ /K]	2.3
Thermal conductivity	20 °C	[W/(m*K)]	21
Thermal shock resistance		K	670
Typical colour		[-]	black

The data indicated on this table are in line with the introductory German Industrial Standard DIN 60672-2 are relate to test specimens from which they were obtained. They are not unconditionally applicable to other forms if the same material. The data must be regarded as indicative only. All data refer to a temperature of 20 °C, unless otherwise specified.