

SILICON NITRIDE CHARACTERISTICS

PROPERTIES			SILICON NITRIDE
BRAND AND CODES			SAN-2
APPEARANCE			DENSE
CHEMICAL COMPOSITON			α -SIALON / β -SI ₃ N ₄
BULK DENSITY		g/cm ³	3.23
APPARENT POROSITY		%	0.5>
MODULUS OF RUPTURE, RT		Mpa	980
YOUNG'S MODULUS		Gpa	300
POISSON'S RATION			0.29
HARDNESS, Hv		Gpa	16.2
FRACTURE TOUGHNESS		Mpa√m	6.0
THERMAL EXPANSION COEFFICIENT		x10 ⁻⁶ /K	3.4
THERMAL CONDUCTIVITY RT		W/m·K	16
THERMAL SHOCK RESISTANCE ΔT		°C	650
DIELECTRIC STRENGTHH		KV/m	
ELECTRICAL RESISTIVITY	200 °C 50° C	Ω·cm	
DIELECTRIC CONSTANT, 1MHz			