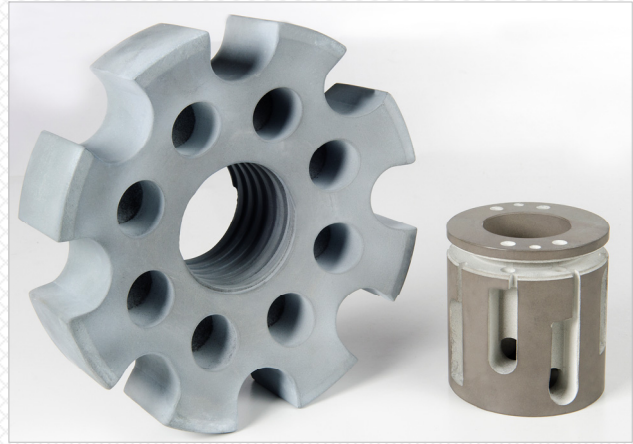


High Performance Engineering Ceramic

TENMAT NITRASIL engineering ceramics have been specially developed with a density of 2.4 g/cm^3 for application within high-temperature insulation and molten metal handling applications.

High-performance NITRASIL exhibits minimal wetting by molten metal contact, meaning NITRASIL components are especially suited for

aluminium contact applications. The inert formulation is lightweight and has an excellent resistance to thermal shock and thermal cycling.



TENMAT NITRASIL ceramic material consists of a high strength, durable silicon nitride which yields superior thermal insulation and electrical insulation properties. Moreover, the NITRASIL material grade is not affected by induction currents. It is available as fully machined finished components.

TENMAT NITRASIL engineering ceramic components are resistant to all common industrial chemicals and non-ferrous metals.

PROPERTY	UNITS	NITRASIL
Density	g / cm^3	2.4
Maximum Operating Temperature (intermittent)	$^{\circ}\text{C}$	1,400
Maximum Operating Temperature (continuous)	$^{\circ}\text{C}$	1,150
Thermal Conductivity	W / mK	16
Electric Resistivity	Ωm	10^{10}
Hardness Hv	kg / mm^2	1,100
Compressive Strength	MPa (ambient)	550
Thermal Expansion	$10^{-6} / ^{\circ}\text{C}$	3
Flexural Strength	MPa (ambient)	190
Fracture Toughness	$\text{Mpa}^{1/2}$	3
Poissons Ratio	-	0.27

The information contained in this data sheet is presented in good faith. They are typical test results tested generally in accordance with BS 2782 and ASTM test methods and should not be used for specifications. **TENMAT** does not warrant the conformity of its materials to the listed properties or their suitability for any particular purpose. For further information please contact our Technical Sales Department on +44 161 872 2181.