

東海

Tokai

TOKAREC - CC Composite

TOKAREC has a high thermal conductivity, a low coefficient of thermal expansion and high strength to weight ratio, which makes it an ideal material for high temperature applications.

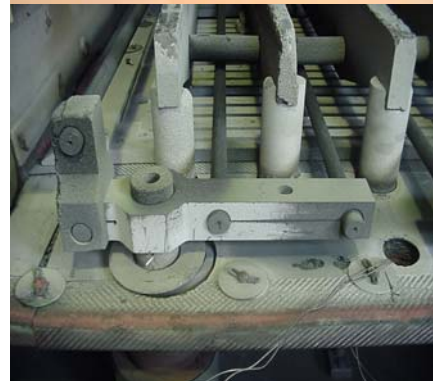
Originally developed for high performance aircraft and space vehicles, TOKAREC has some unique properties that makes it suitable for use in a wide variety of industries. TOKAREC parts are found in vacuum furnaces, chemical reactors, silicon wafer processes and a host of other industrial applications. In particular, furnace charging systems made in TOKAREC, not metal, reduce the size of the fixtures which, in turn, leads to increases in productivity. The high strength gives added protection to areas of the furnace vulnerable to mechanical wear while the low expansion rate means low deformation of parts during heating and cooling.

FEATURES

- High Strength to Weight Ratio
- Excellent Heat and Thermal Shock Resistance
- Excellent Chemical Resistance
- Low Coefficient of Thermal Expansion
- Low Thermal Conductivity
- High Purity

APPLICATIONS

- Furnace Structural Parts
- Heaters
- Jigs and Fixtures
- Components for Crystal Pullers

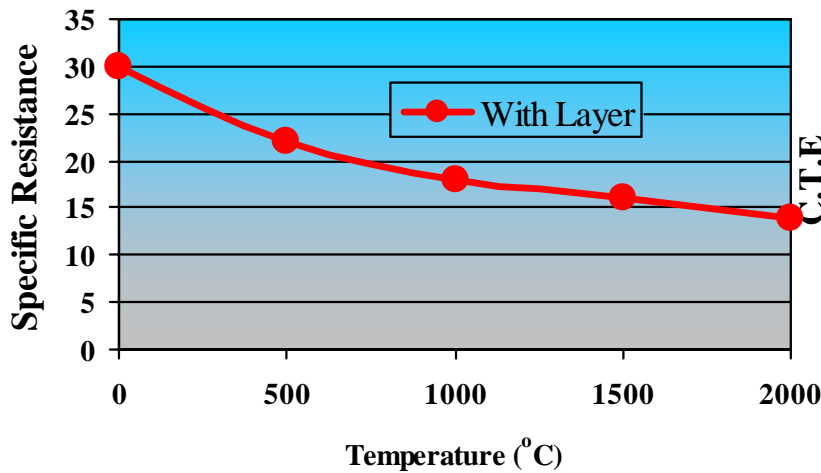


Typical Properties

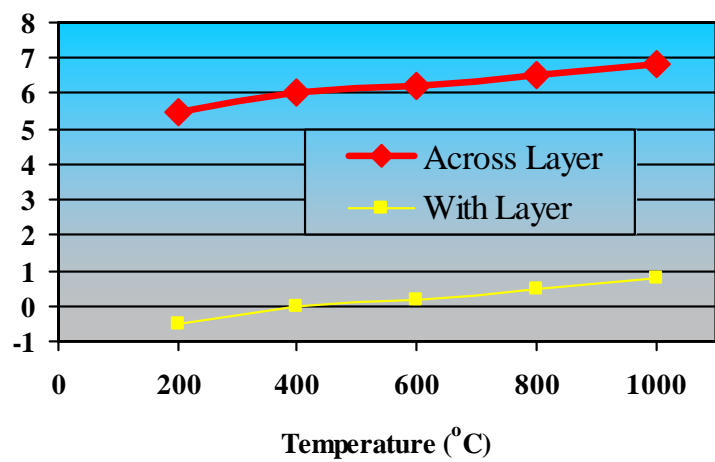
Property	Unit	TOKAREC Grade	
		28S	20S
Density	g/cm ³	1.48	1.40
Flexural Strength	MPa	170	100
ILSS*	MPa	9.5	5.0
Tensile Strength	MPa	100	91
C.T.E (~450°C)	x10 ⁻⁶ /K	0.08	0.05
Thermal Conductivity	W/mK	2.8	2.2
Electrical Resistivity	μΩm	26	29

*ILSS – Inter Laminar Shear Strength

Resistivity



Coefficient of Thermal Expansion



Thermal Conductivity

