

ITEM			MATERIAL	Yttria
Main Component				Y ₂ O ₃
	Density		g/cm ³	5.00
MECHANICAL	Vickers Hardness Load 500g		GPa	6.0
	Flexural Strength		MPa	130
	Compressive Strength		MPa	0
	Young's Modulus		GPa	160
	Fracture Toughness		Mpa M ^{1/2}	1.1
THERMAL	Coefficient of Thermal expansion	40 ~ 400℃	x 10 ⁻⁶ / °C	7.20
		40 ~ 800℃		7.60
	Thermal Conductivity (20℃)		W/(m·k)	14
	Specific Heater		J/(kg·K)	0.45X10 ³
	Thermal Shock Resistance (ΔT)		℃	–
ELECTRICAL	Dielectric Strength		V/m	11X10 ⁶
	Volume Resistivity	20℃	Ω ·cm	>10 ¹³
		300℃	Ω ·cm	10 ¹⁰
		500℃	Ω ·cm	10 ⁷
CHEMICAL	Nitric Acid (60%, 90℃)		Weight Loss mg/cm ² /day	–
	Sulphuric Acid (95%, 95℃)			–
	Caustic Soda (30%, 80℃)			–