



Yttria Stabilized Zirconia

TECHNICAL DATA SHEET OF YTTRIA STABILIZED ZIRCONIA (YSZ)

	PROPERTIES	VALUE
CHEM.	ZrO ₂	94 - 96 %
	Y ₂ O ₃	4 - 6 %
	Others	0.35 %
PHYSICAL	Colour	Pearl White
	Surface Finish	Smooth
	Density	6.05 ± 0.05 g/cm ³
	Bulk Density	3.80 ± 0.05 kg/ltr
	Porosity	Nil
	Water Absorption	Nil
	Hardness on Moh's Scale	9+
	Hardness on Vicker's Scale	1425 Hv ₅
	Flexural Strength 3 P.B. (@ Room Temperature)	1100 MPa
	Compressive Strength (@ Room Temperature)	2800 MPa
	Young's Modulus	200 GPa
	Crushing Strength (@ Room Temperature : Ø 1.5mm Bead)	-
	Bead Sphericity 90%	-
	% Cumulative Weight Loss / Hr	
	After 24 Hrs.	-
	After 96 Hrs.	-
THERMAL	Coefficient of Linear Thermal Expansion (Room Temperature to 1000 °C)	11 x 10 ⁻⁶ / °C
	Thermal Conductivity (@ Room Temperature)	2.1 W/mK
	Max Temperature of Use (No Load Condition)	1300 °C (2372 °F)
ELECTRICAL	Dielectric Strength (@ Room Temperature)	9 kV/mm
	Dielectric Constant (@ Room Temperature @ 1 MHz)	15 - 18
	Dissipation Factor (@ Room Temperature @ 1 MHz)	< 0.002
	Volume Resistivity (@ Room Temperature)	>10 ¹² Ω.cm

Kindly note that all values mentioned are based on test pieces and may vary according to component design and manufacturing process. The values are not guaranteed by Jyoti Ceramic Ind. in anyway whatsoever and should be treated as indicative only. All values refer to a testing temperature of 20 °C, unless otherwise specified.



Contact us :

JYOTI CERAMIC INDUSTRIES PVT. LTD.



www.jyoticeramic.com

C-21, N.I.C.E, Satpur, Nashik - 422 007, Maharashtra, India.

Tel.: +91 (0) 253 26918111, 2350120 / 338 / 729 • E-mail: info@jyoticeramic.com