

DATASHEET: ZIRCONIA MATERIALS							
PROPERTIES	Units	EZY 94	EZY 88	EZM 96	EZC 96P	EZZ 66P	EAZ 20
		Y ₂ O ₃ TZP	Y ₂ O ₃ FSZ	MgO PSZ	CaO FSZ	Zircon	ZTA
Physical Properties							
% Zirconia	% wt	94	88	96.5	96	68	23
% Stabiliser (by wt)	% wt	6	12	3.5	4	30 (SiO ₂)	77 (Al ₂ O ₃)
Density	g/cm ³	6.05	5.85	5.85	4.3	3.87	4.3
Open Porosity	%	0	0	0	25	16	0
Thermal Properties							
Max Operating Temp	°C	1200	1800	1200	2400	1650	1200
Max Operating Temp	°F	2192	3270	2190	4350	3000	2190
Thermal Conductivity (2	W/m ² K	2.2	2.5	2.2	2	3.5	27
Coefficient Thermal Exp	x10 ⁻⁶ K ⁻¹	10.3	10.5	10.1	9.6	5	8.3
Mechanical Properties							
Flexural Strength	psi	150000	30000	105000	-	-	65000
Hardness- Mohs	Mohs	8	8	8	-	-	16
Tensile Strength	psi	-	-	60,000	-	-	42000
Electrical Properties							
Volume Resistivity at 2C	ohm - cm	10 ¹³	10 ¹³	10 ¹³	-	-	10 ¹⁴
Volume Resistivity at 6C	ohm - cm	10 ⁴	10 ⁴	10 ⁵	-	-	10 ⁹
Dielectric Constant	25°C & 1 mhz	29	-	28	-	-	10.6

** - Full Chemical Analysis Available On Request

Additional material properties are available - please ask at enquiries@earthwaterfire.com

The values given on this data sheet were established on test pieces and identify the characteristic data of our products. These values should be used for guidance only as actual values will depend on individual geometry and application of each part.

For Further Information contact us at: enquiries@earthwaterfire.com