

YSZ Single Crystals

Yttria stabilized Zirconia

Typical Properties

Chemical Formula:	(Zr,Y)O ₂ with ZrO ₂ : Y ₂ O ₃ = 92:8 (8 mol% Y ₂ O ₃ stabilized)
Crystal Structure:	Cubic, Face Centered, CaF ₂ type
Unit Cell :	a = 5.125 Å
Density :	5.8 g / cc
Purity:	99.99%
Melting Point:	2500 °C
Thermal Expansion Coeff :	10.3 ppm / °C
Dielectric Constant:	27
Crystal Growth Technique:	Flux Technique



Maximum crystal Size:	2" diameter
Standard substrate Sizes:	2" dia. x 0.5 mm thick, one side or two sides polished 1" dia. x 0.5 mm thick 10 mm x 10 mm x 0.5 mm
Standard Orientation:	(100), (110) and (111) also possible
Orientation tolerance:	+ / - 0.5°
Surface Roughness:	<10 Å

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