

3YSZ - Sensor

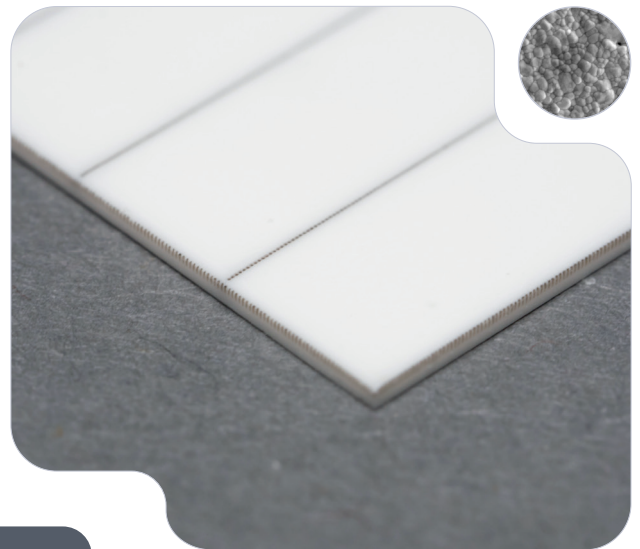
3mol% Yttria Stabilized Zirconia

Applications

- sensor substrate for thinfilm application
- sensor protection plate

Advantages

- very fine-grained homogeneous grain structure of 1 μm
- good electric insulation properties at room temperature
- extremely good mechanical strength
- can be cut by laser or waver saw
- good evenness
- standard thickness of 0.15 mm with high flexibility



Typical characteristics	Unit	Value
Colour		white
Density	g/cm^3	6.03
Surface roughness R_a	μm	< 0.1
Bending strength	MPa	> 1.000
Thermal expansion coefficient	10^{-6}K^{-1}	~ 11
Thermal conductivity	W/mK	5.3
Standard dimension	mm	101.6 x 101.6
Thickness	mm	0.15 / 0.12
Structure		dense
Main components	-	95% ZrO_2 + 5% Y_2O_3
Dielectric strength at 20°C	kV/mm	> 10

3YSZ is a special partially stabilized zirconia which is used for thinfilm applications. Among others, it can also be used as an ion conductive ceramic membrane for Solid Oxide Fuel Cells (SOFC). This material is characterized by its excellent flexibility, extremely high bending strength and high fracture toughness. Another advantage is that this material can be manufactured in small thicknesses. The standard substrate thickness is 0.15 mm. Other dimensions are possible. Please send in your inquiry.

! We cut the material according to your wishes!
Please send in your CAD data.

Note

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