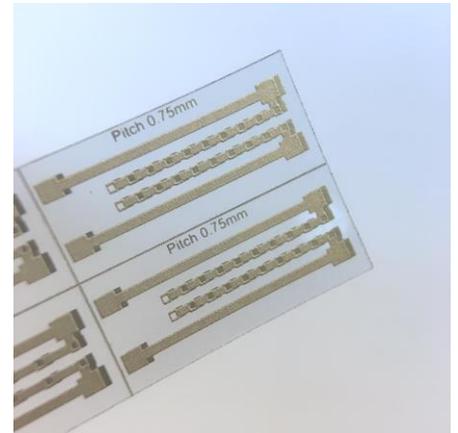


ELITE™ Translucent substrates

99.5% Alumina Oxide ceramic substrates with 80-90% transparency

In need of better optical management or want to give your product a premium design feature? ELITE™ translucent substrates will give you between 80% to 90% transparency with an improved thermal conductivity versus glass. Thanks to its unique own formula based on 99.5% ceramic Alumina Oxide, ELITE™ translucent substrates offer dielectric properties and a high flexural strength making it suitable for complex packages, PCBs and other applications.

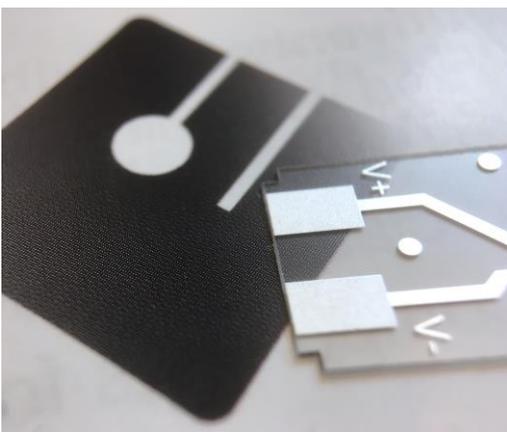


Features and Benefits

- Transparency up to 80-90%
- Dielectric with strong thermal properties
- High operating temperature up to 350°C
- Low expansion coefficient
- Multi-layer circuits possible
- Hermetic packages possible, 0% water absorption

Application examples

- LED lighting
- Architectural
- Underwater
- Laser
- Premium consumer electronics
- Easy maintenance
- Agricultural



Design specifications

- Conductor material: Silver (Ag)
- Finish: None (Silver Ag) or NiAu (Gold plating)
- Max # Layers: 2
- Max Board/Panel Size: 100mmx100mm standard
- Panel size tolerance: $\pm 50\mu\text{m}$
- Thickness per layer: 0.4 (standard), 0.5 or 1.0mm
- Thickness tolerance: $\pm 5\%$
- Warpage (non-flatness): $\leq \pm 0.3\%$

Call us now for a quote:
+32 (0)14 56 52 72

ELITE™ Translucent substrates characteristics (typical)

PROPERTY	ITEM	UNIT	VALUE
Physical	Transparency	-	80%-90%
	Material - Alumina%	%	99%
	Water absorption	%	0
Electrical	Dielectric Constant (1MHz)	-	9.8
	Dielectric strength	MV/m or KV/mm	>16.9
	Insulation/Volume resistance	$\Omega \cdot \text{cm}$	$>10^{14}$
Mechanical	Density after Sintering (Bulk density)	g/cm ³	3.89
	Flexural Strength (3 point)	MPA	379
	Warpage	%	≤ 0.3
Thermal	Coefficient of Thermal Expansion (CTE)	ppm/°C	8.4
	Thermal Conductivity (25°C)	W/m · K	26-28

The data shown is typical of commercially available material and is only offered for comparative purposes. The information shall not be interpreted as absolute material properties nor does it constitute a representation or warranty for which we assume legal liability. User shall determine suitability of the material for the intended use and assumes all risk and liability whatsoever in connection therewith.