Aerospace
Defence
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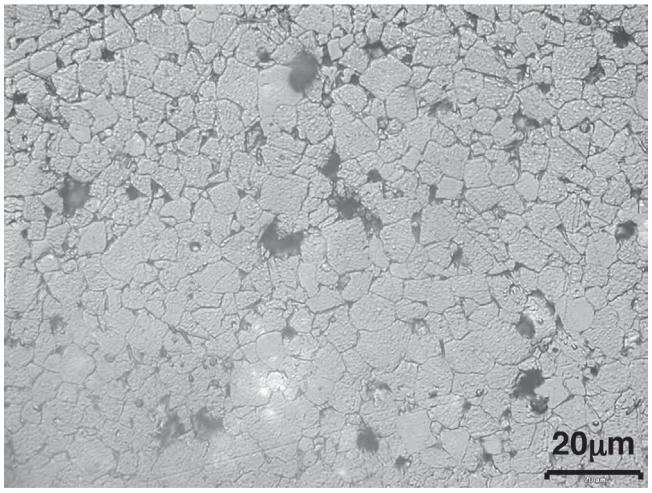
Industrial
Medical

Ferroperm™ Piezoelectric ceramics

Pz24FG Hard relaxor type PZT



Microstructure of Pz24FG at a magnification of 5000 times

A very hard PZT with low permittivity and fine-grained structure

Pz24FG is a hard PZT with many similarities to Pz24. It is a material with very low dielectric constant and low dielectric loss. The emphasis in the development of this material was to achieve a finer grain size than what you see in Pz24 and thereby making it more suitable for cut and dice operations.

Repeatable performance

The main focus through our entire production process is to provide materials and components with the highest possible reproducibility of properties and parameters and to obtain the lowest aging rates in the industry.

Our materials have a variation of ±5% for all parameters. This reduces the requirements for impedance matching, frequency tuning and dimensioning of the housing meaning fewer rejects and lower costs.

Customised solutions

We have more than 60 years of experience in the production of advanced piezoelectric ceramics. Our team has extensive expertise in customising designs to match the customer's needs.

Please contact us to discuss your requirements in further detail.

Key benefits

- Lowest batch to batch variation in the industry
- Stable material with consistent performance
- Customised or standard designs

Key features

- Low dielectric constant
- Low dielectric loss
- High piezoelectric voltage constant

Applications

- Multi element transducers
- Single element medical transducers
- High power transducers

Contact

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Material properties

Electrical	Symbol	Pz24FG
Relative dielectric permittivity at 1 kHz	K_{33}^{T}	400
Dielectric dissipation factor at 1 kHz	tan δ	2.4×10^{-3}
Curie temperature	T_C ›	300 °C
Recommended working range		200 °C
Electromechanical		
Coupling factors	k_p	0.42
	k_t	0.42
Piezoelectric charge coefficient	d_{33}	125 pC/N
Piezoelectric voltage coefficient	g_{33}	35×10^{-3} Vm/N
Mechanical		
Mechanical Quality Factor	$Q_{m,t}^{E}$	›1300
Density	ρ	7.60 g/cm³

Note: Due to continuous process improvement, specifications are subject to change without notice.
Please be aware that extreme dimensions and geometries can lead to exaggeration in tolerances in all materials.