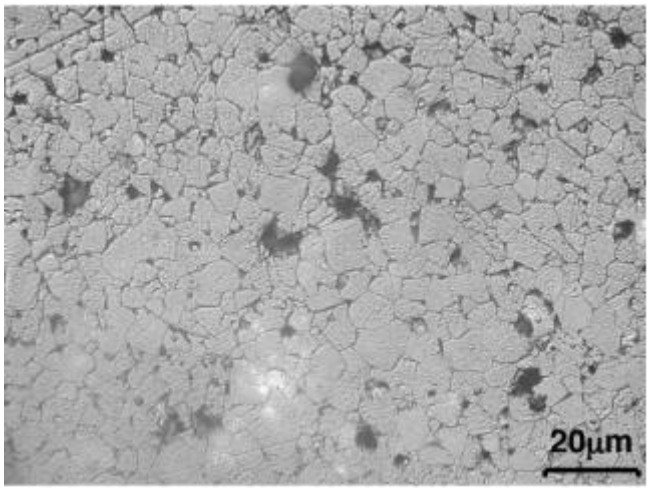
Ferroperm Piezoceramics

Your Partner in Smart Solutions

DATA SHEET

Very hard PZT

Type Pz24FG



Microstructure of Pz24FG at a magnification of 5000 times

01 Description

24FG 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.

Customized solutions

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

Please contact us to discuss your requirements in further detail.

02 Key features and benefits

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

- Very low dielectric constant
- Very low dielectric loss
- High piezoelectric voltage constant

03 Applications

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

04 Contact

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Hard relaxor type PZT, Type Pz24FG

05 Material properties

Electrical	**Symbol**	**Pz24FG**
Relative dielectric permittivity at 1 kHz	$K_{33}T$	400
Dielectric dissipation factor at 1 kHz	tanδ	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
	g_{33}	35×10^{-3}Vm/N
Mechanical		
Mechanical Quality Factor	$Q_{m,\frac{E}{t}}$	>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.