Ferroperm Piezoceramics
Your Partner in Smart Solutions

DATA SHEET

PiezoPaint™

A flexible piezoelectric material for soft substrates

PiezoPaint™ material is developed primarily with the aim of compatibility with flexible substrates such as textiles, plastics and paper. Itself a highly flexible material, PiezoPaint™ can be applied via common commercial deposition techniques including pad-, screen-, and stencil printing as it cures at low temperatures (< 100 °C).

Potential applications:
- Printed circuit boards
- Smart textiles
- Therapeutic ultrasound
- Underwater acoustics

Material properties

Electrical	**Symbol**	**Unit**	**PiezoPaint™**
Relative dielectric permittivity at 1 kHz	K_{33}^{S}		80
Dielectric dissipation factor at 1 kHz	tanδ	10^{-2}	3.5
Electromechanical			
Coupling factor, thickness	k_t	%	8.2
Piezoelectric charge coefficient[1)]	d_{33}	pC/N	40
Piezoelectric charge coefficient[1,2)]	d_{31}	pC/N	15
Frequency constant, thickness	N_t	Hz m	1410
Mechanical			
Acoustic impedance	Z_a	MRayl	13.9
Density	ρ	g/cm3	5.0

1) Semi-clamped, in the case of films printed onto substrate.
2) Estimated value, under evaluation
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CTS | Ferroperm is a company completely dedicated to the production of high quality piezoelectric ceramics for our main strategic markets: Vibration sensors, flow-meters, medical diagnostics, underwater acoustics and NDT. We have more than 50 years of experience in production of advanced piezoelectric ceramics, and employ today more than 50 motivated people in management, production, development and research. We have extensive experience in development and improvement of products, which can fulfil customers' individual needs.