

Nanopaint PE Ink

Piezoelectric Inks for Printed Electronics

Nanopaint piezoelectric inks are produced through a high quality process in order to exhibit a unique set of inherent piezo and pyroelectric proprieties. It can be applied on various substrates, such as glass, PET , PC or paper, by various printing techniques:

- Screen printing
- Stencil
- Doctor blade
- Spray

Nanopaint piezoelectric ink is easily solubilized in various solvents, showing distinctive properties such as:

- High strain with low applied voltage, which gives a good actuation power.

- High dielectric constant suitable for specific applications.
- Great flexibility allowing the production of flexible sensors.
- Easy processability allowing different sensor configurations.
- Custom formulation suitable for each type of printing technique.

With a low cost solution, it is possible to produce and implement piezoelectric sensors, measuring mechanical stress or electric field variations, on rigid or flexible substrates.

Instructions:

Before use, place the ink in a mechanical stirring during 30 minutes. After the printing process, the ink must be polarized to enhance their piezoelectric proprieties.

Base polymer	PVDF-TrFE
Melting Temp. range (°C)	~ 150
Curie Temp. range (°C)	~100
Flash point (°C)	58
Density (g/cm ³)	1.9
Piezoelectric values	
d33 (pC/N)	21
Dielectric values	
Dielectric const. range @1 kHz, 25 °C	11.5
Coercive field (kV/cm) *	460
Poling min. (kV/cm) *	600
Poling max. (kV/cm) *	1000
Mechanical values	
Young Modulus range (GPa)	0.61

* using the Corona method.