

MAGNETOELECTRIC INK

Nanopaint's MEInkNP® is a screen printable magnetoelectric ink, able to generate an electrical response to the variation of a magnetic field. With this ink it is possible to produce and implement magnetic sensors, measuring mechanical stress or electric field variations, on rigid or flexible substrates.

INK FEATURES

\checkmark	High dispersion and isotropy	\checkmark	Magnetoelectric
√	High magnetoelectric response	√	Several types of sensors and actuators can be printed
√	Custom formulation suitable	\checkmark	Easy processability
✓	Easy screen printable	\checkmark	Of easy cleaning

INK PROPERTIES

Apparency	Dark brown/Black
Cure processing	Thermal cure
Solid content (%)	40%
Viscosity	8 000 - 12 000 cP
Base polymer	PVDF-TrFe

PIEZOELECTRIC/PYROELECTRIC VALUES

Piezoelectric coefficient d33 (pC/N) 18 - 23	efficient d33 (pC/N) 18 - 23	3
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DIELECTRIC VALUES

Dielectric const. range @1 KHz, 25 °C	8 - 12
Coercive field (KV/cm)	45 - 50
Poling min. (KV/cm)	600
Poling max. (KV/cm)	1000



NanoPaint, Lda.

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Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

The information and the products are for use by technically skilled people at their own discretion and risk and do not relate to the use of this product in combination with any other substance or any other process.



MAGNETIC PROPERTIES

Magnetization saturation (emu.g⁻¹) 6

Remanence (emu.g⁻¹) 3

Coercive Field (Oe) 2500

HANDLING PROPERTIES

Vigorously stir with a spatula	
Screen printer, doctor blade printing	
55-63	
60-75 Shores	
135°C for 10 minutes in a regular or ventilated oven	
Nanopaint's cleaning solvent Clear100NP	
Glass, PET, PC or paper	
Should be kept well sealed in its container, away from direct sunlight and stored at a controlled temperature > 20°C	

Shelf-life

Ink in an unopened container has a recommended shelf life of 3 months from the date of delivery



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