TECHINSTRO®
Vision Beyond Technology

Graphene Conductive Ink

Product Catalogue

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The graphene ink is one of the best conductive ink in terms of cost and printability. It is also known as carbon-based organic ink or Graphene-based ink. It is synthesis by using the solution-phase exfoliation method for mainly bulk quantity. The product formulation includes research-grade graphene, epoxy binder, and solvent, which is not water-based. The graphene used in product making is 2 -3 layered, 99.95% pure and free of impurities. It has excellent conductivity, which makes the product more conductive in nature. Nowadays, the graphene conductive ink is preferable than silver ink due to its cost-effective and environmentally friendly quality. Graphene formulated ink having good electrical conductivity used for various electronics and thermal applications by screen printing, dipping and brush

Product Code: GRAP-INK-TI

Technical Properties

SPECIFICATIONS	*VALUES*
Bulk Density	1.3 g/ml
Surface Resistivity	18 ohms for line thickness: 0.04mm
Product Composition	Graphene
Percentage loading	40 %
Sintering Temperature	100 °C
Sintering Time	30 Minutes
Particle Size	~ 5 microns
Binding	Paper, PET, glass, polyimide, metal and silicon Oxide
Form Factor	Liquid
Coverage	1 m2 for 10 grams
Recommended mesh	100 Mesh
Color	Black
CAS NO.	7782-42-5
Viscosity	23500 cps
Thinner	Normally not required. If required used our thinner
Shelf Life	6 months in unopened container

Applications

- Flexible And Flexographic's Electronics
- Wearable Electronics
- Thermal Applications
- Printed Circuit Board (PCB's)
- Heat Sinks, Soldering, OLED
- Touchscreens
- Radio-Frequency Identification Tags (RFID) Tags
- Chemical And Biological Sensors
- Super-Capacitors, Smart Packaging
- Membrane Switches
- Thin-Film Transistors
- E-Paper
- Photovoltaic Cells
- Electrochemical
- Optoelectronics
- Graphene Battery

Features

- Excellent Screen Printing Properties on various substrates
- Very Good Adhesion on Paper, PET, Mylar, Glass, Epoxy, Polyamide, Acrylic, Silicon Oxide, Metals and many other substrates
- Dries quickly at low temperature
- Excellent resistant to abrasion, scratching, flexing and creasing

Safety Instructions

- The bottle cap must close tightly to avoid solvent evaporation.
- Stored it below room temperature
- Since it is volatile material, hence ventilation is needed in the operation area.
- Shake the bottle vigorously for 5-10 minutes before applying on any surface.
- Used it within the six months of opening
- Avoid skin contact
- Keep it far from the children's reach.
- After the operation, wash hands and exposed areas of the skin properly.

Packaging

Close the cap tightly and store the containers at room temperature with lids tightly. The material should not be stored at temperature below 0 °C or greater than 30 °C. We are not responsible if the product is stored in appropriate conditions.

Handling

When handling, the researcher should use powder-free non-latex gloves, which should be held carefully. While experimenting, if the operator uses a ink with bare hands, the chances of contamination due to finger oil are very high. Therefore, it is advised to use nylon or polyester gloves.

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