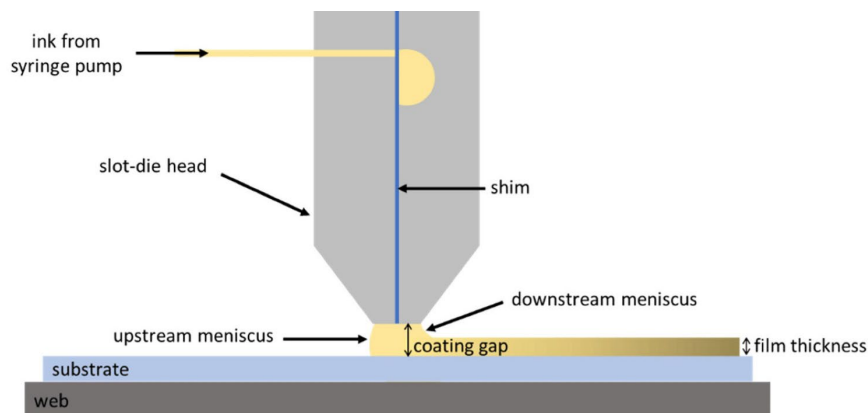


Technology Offer CSIC/JB/001

Next-generation electrical conductive paint: safer, sustainable and cost-effective



Electrically efficient, water-based conductive paint that shows high performance in a wide variety of different large surfaces, with a tailored viscosity without compromising its excellent conductivity.

Intellectual Property

PCT application filed

Stage of development

The prototype shows repeatable/stable performance. TRL 4-5.

Intended Collaboration

Licensing and/or co-development

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Market need

The electronics industry is seeking cost-effective, high-performance, and environmentally friendly alternatives to traditional conductive paints, which rely on expensive noble metals (silver, gold) and organic toxic surfactants/binders, which exhibit poor adhesion to certain substrates, requiring additional surface preparation. Nanomaterials such as graphene offers exceptional conductivity but, up to now, their formulation challenges have limited their potential due to dispersion issues, leading to inconsistent electrical conductivity.



Proposed solution

This innovative, metal-free, and toxin-free conductive paint offers unmatched sustainability and scalability for industrial production. Its higher electrical conductivity and tunable viscosity ensure seamless compatibility with various liquid-phase processing technologies, from spray-coating to slot-die coating, able to produce a uniform and long-lasting coating.

Ideal for large-area applications, it enables safe, eco-friendly manufacturing without compromising performance.

Competitive advantages

- This conductive paint offers a customized viscosity with no change in its excellent conductivity.
- Compatible with a wide range of large-area liquid phase processing technologies.
- This environmentally-friendly water-based conductive paint is safer, sustainable and cost-effective for electronics, production of solar cells, energy storage devices, and automotive applications, among other industrial applications.