

Production Ink

Ready-made active ink for industrial production of organic solar cells

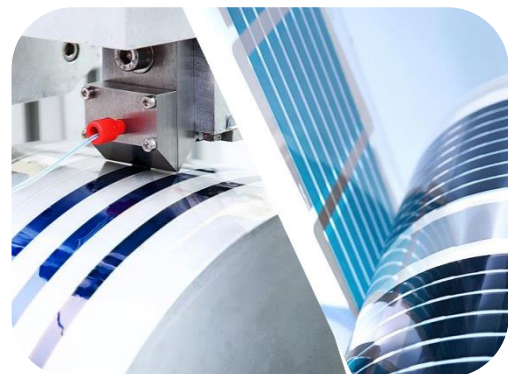
Active layer Production Inks (PI) for organic solar cells are based on thorough scientific understanding of active materials design and ink development through extensive research in large-scale processing of OPV. The active layer materials are optimized for processing techniques and technical requirements in large-scale roll-to-roll (R2R) fabrication with focus on the delicate interaction between ink, processing, machinery and the properties of the solar cells. The different Production Inks from infinityPV are developed for and tested in a large-scale production environment under ambient conditions on ITO-free substrates.



The inks come preformulated with an optimized donor:acceptor ratio, solvent combination, active material loading and viscosity, all optimized for slot-die or blade/knife coating on flexible substrates applying an inverted geometry device structure.

Key highlights:

- Ready-to-use formulated ink with optimized
 - Solvent
 - Donor:Acceptor ratio
 - Material loading
- Low cost
- Robust large-scale production on flexible substrates
- R2R compatible
- Superior processability and reproducibility
- High performance with thick layers (> 400 nm)
- Highly uniform dry films
- Semi-transparency and attractive colors
- Long shelf life (> 1 year)
- Volume 100 - 1000 ml



Photovoltaic parameters of flexible, ITO free and inverted OPV

	V _{oc} (V)	J _{sc} (mA/cm ²)	FF (%)	PCE (%)
PI-1	~0.55	~6	~55	1.5-2
PI-2	~0.7	~6	~50	2-3
PI-3*	~0.8	~8	~50	3-4
PI-4*	~0.75	~9	~60	4-5
PI-5*	~0.8	~10	~60	~5
PI-6*	~0.8	~12	~65	~6

**Comes also with non-halogenated solvents*