At LG Innotek metallization, our focus is on the business of PV. We offer performance-driven products and services that come from cutting-edge technology and innovation.

This metallization of PV solutions offers an overview of products and services from LG Innotek which are designed to maximize efficiency.

Answer for PV

As your metallization partner, we look forward to demonstrating our commitment to provide improved efficiency and financial excellence —in a way that only LG Innotek can.

Contact us to find out more about our product of innovation and excellence.
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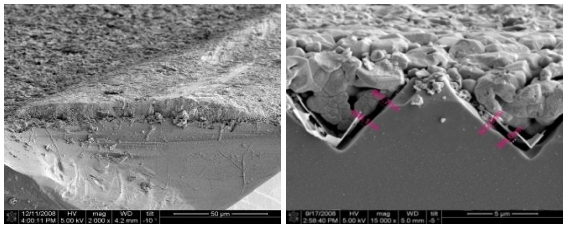
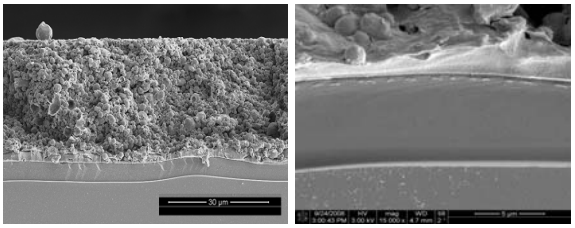
Front side Ag paste

Front silver paste is designed for contacting p/n+ type crystalline silicon solar cells passivated with SiNx layer (750~900 Å) and high sheet resistivity (shallow emitters). The rheology of the paste is suitable for wide printing speed and high aspect ratio lines. When fired, this screen printable paste yields very high electrical conductivity, which results in high a fill factor and energy conversion efficiency. The paste provides very good electrical contact to n+ surfaces passivated with Our front silver paste is able to contact emitters from 60~80 Ω/square.



Backside Al paste

Back aluminum conductor that provides a low bow, strong back surface field, and excellent electrical performance. The aluminum conductor is specially designed to form a p+ doped layer when fired on p-doped silicon photovoltaic cells 150~200 um thick. The paste has been optimized to eliminate Al bead formation during the firing process. The products are lightly fritted using an environmentally friendly cadmium free glass composition and can be fired over a broad range of conditions including co-fire process techniques with front contact silver paste.

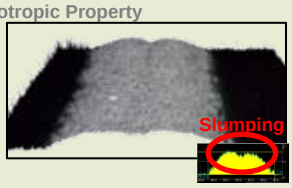


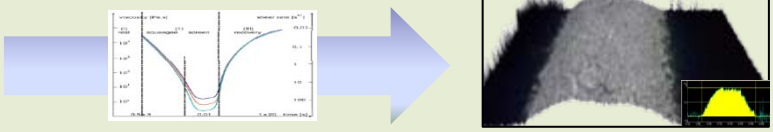
Front side Ag paste

❑ Fine finger

Development for 80um finger → Development for ≤ 60um

- Rheological Control
  -. Thixotropic Property
- New Concepts for Ultra Fine Finger
  -. Off-Set / Photosensitive Paste

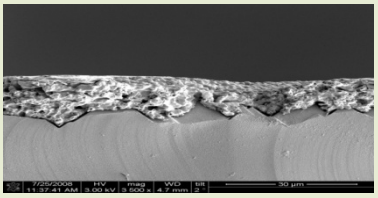


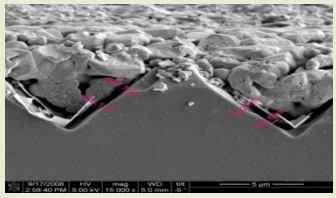


❑ High Resistance of Emitter

Crystalline Glass Frit → High P Doping Filler

- Functional Glass Frit Design
- Multi-Functional Filler Design
  -. Control of Sintering Degree



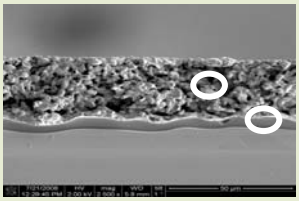


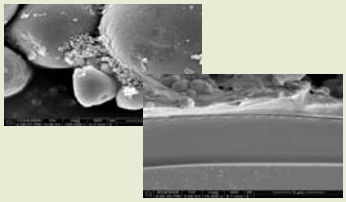
Back side Al paste

❑ Thinner Wafer

180 um wafer (Current) → Development for ≤ 150um

- Optimized Inorganic Materials
  : Tab Density, Thermal Expansion Control
- Paste for Thin Layer
  : Possible Local BSF (Mesh Type)

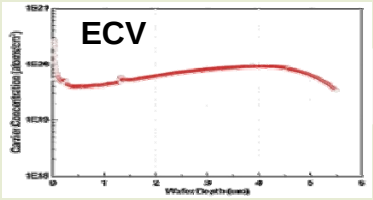


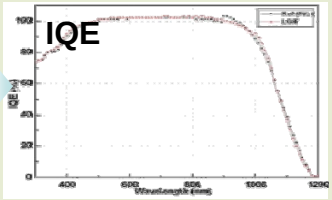


❑ High Reflectance (Backside)

Metallurgical Control → Filler Composition Control

- Optimized Powder Composition
  : Powder Shape Control
- Optimized Dopant Concentration (BSF)





• Electrical Properties (Customer Equipments Evaluation)

Isc(A)	Voc(V)	Pmax (W)	Im(A)	Vm(V)	F.F(%)	Eff(%)	Rs(Ω)
8.878	0.631	4.36	8.33	0.52	77.8	18.24	0.0039
8.901	0.630	4.36	8.35	0.52	77.7	18.23	0.0042
8.932	0.632	4.38	8.37	0.52	77.5	18.30	0.0040
8.961	0.630	4.39	8.38	0.52	77.5	18.31	0.0035
8.967	0.631	4.39	8.41	0.52	77.6	18.36	0.0041