

Product Information Sheet



ElectroSpense™ S-540 is a silver front side contact ink, designed for use for mono and multicrystalline silicon photovoltaic cells.

Product Benefits

- Consistent emitter layer penetration
- Wide processing window
- Ability to print finer contact lines

Paste Characteristics

Typical Properties	S-540
Viscosity (kcps) ¹	90-120
Sheet Resistivity (mΩ/sq @ 1 mil)	1-2
Shelf Life (months after ship date)	6

(1) Measured with Brookfield R/S Rheometer, 25 mm cone/plate @9.6 s⁻¹, 25°C

Processing Recommendations

Application: Screen printing

Screen Type: 280-325 mesh stainless steel with 15-25 µm emulsion

Typical Fired Thickness: 10-20 µm range

Substrate: Mono and multicrystalline silicon

Drying: Typically 1-3 minutes in an IR belt drier at 200°C

Firing: Spike profile with IR furnace. Peak Temperature of 720-760°C – **See Figure 1**

Typical Line Resolution: 75-125 µm (3-5 mils)

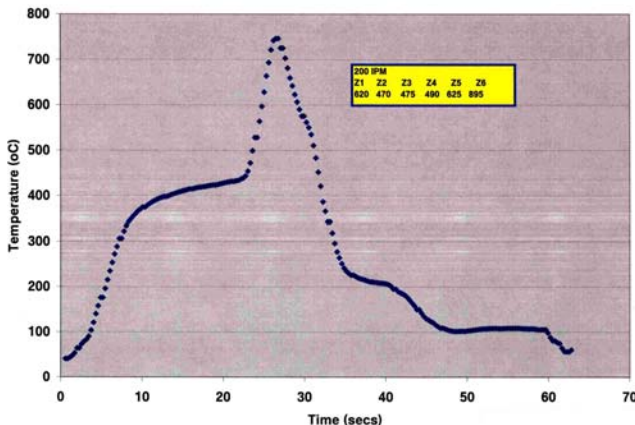


Figure 1: Representative Firing Profile
Actual firing conditions must be established by customer.



6801 Brecksville Road, Suite 200, Independence, OH 44131 | 877-513-3483 | Fax 216-447-9424 | www.fivestartech.com

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