



reliability

Product Spotlight

SOL205S

New Lower Silver Content Back-side Metallization Paste for c-Si Cells

Heraeus continues to reduce the silver content per cell with the introduction of SOL205S, a back-side tabbing Ag conductor paste for mono and multicrystalline silicon solar cells. SOL205S requires less paste per cell than previous generations and maintains the advantage of printability ease and excellent cell adhesion. The paste is co-fireable with back-side aluminum and front-side silver pastes.

SOL205S is a Pb and Cd free material that has excellent solderability in both lead and lead-free solders.

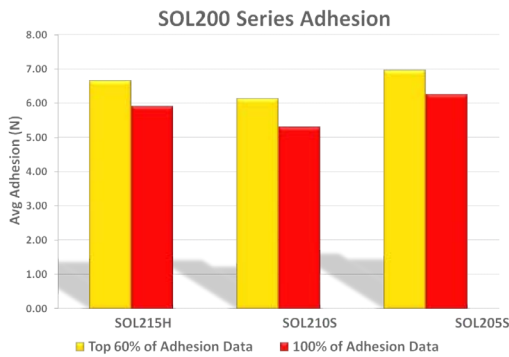
Key Benefits

- Reduced silver content
- Low paste consumption
- Excellent solderability
- High adhesion strength using Pb or Pb-free solders
- Ease of printability
- Cd and Pb Free
- Co-fireable with back-side Al and front-side Ag pastes

Low Ag Content with Improved Adhesion

Heraeus SOL205S continues the tradition of allowing customers to reduce cost while maintaining excellent performance. The reduction in silver content is only one component SOL205S provides toward cost saving for your cell production.

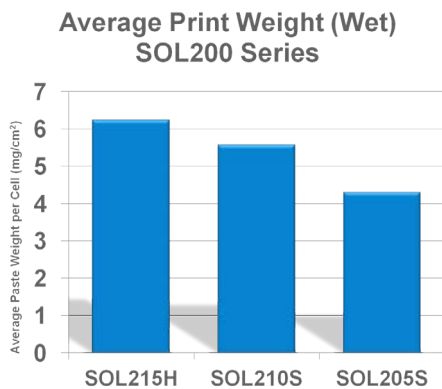
Reliability is also a factor that must be considered when selecting a back-side paste. SOL205S provides high adhesion for back-side tabbing applications. This reliability in adhesion gives high production yields, thereby lowering your manufacturing costs. Lower silver content must be complemented with high reliability, and that is what you get with Heraeus.



Lower Paste Consumption

The SOL200 Series continues a downward trend in paste usage per cell. The Heraeus SOL205S requires less paste consumption per cell which will improve a cell's cost position without sacrificing performance.

Lower silver content, reduced paste consumption per cell, high reliability and improved performance makes the Heraeus SOL205S an ideal component to lowering your cells' cost per watt.



www.pvsilverpaste.com

Typical Properties

Viscosity:

HBT Cone and Plate Viscometer (Brookfield):

- 70 – 130 kcps
- CPE-51 spindle, @ 1 RPM, 25°C

Solderability:

- 96.5Sn/3.0Ag/0.5Cu
- Use with low solids, no clean flux

Solids: 55 ± 1%

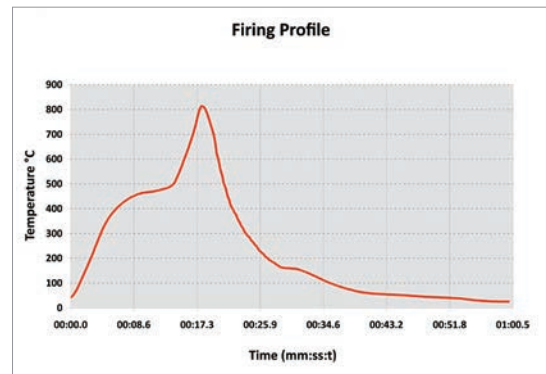
Processing Guidelines

Printing: Screen Parameter Recommendations:*

- 230 – 250 mesh, 36 µm stainless steel wire
- 280 mesh, 32 µm stainless steel wire
- 5 – 15 µm emulsion

*Guidelines may vary based on manufacturing process. Please contact your Heraeus Technical Service Representative to determine ideal screen parameters for your process.

Drying: Typically dried in an IR dryer with set points of 250 – 300°C in less than 20 seconds or 150°C for 10 minutes in circulated air oven.



Firing: IR Furnace with Actual Wafer;
Peak Temperature at 725 – 825°C.

Thickness: 4 – 8 µm (fired)

Thinner: RV-372

Storage: Store in a dry location at 5°C – 25°C.
DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening.
Spatulate well before using.

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