SILVER-ALUMINUM CONDUCTOR PASTE FOR SOLAR CELLS

Technical Data Sheet

PPAS-series

APPLICATION

Ag/Al conductor pastes for solar cells are designed to form the ohmic contact to the n- type silicon front side of mono- or polycrystalline silicon solar cells. The aluminum is purposed to reduce the contact resistance between the thick film material and the p-type silicon surface.

PPAS-052 is a lead free Ag/Al paste version for screen printing on back side of mono- and polycrystalline silicon solar cells.

BENEFITS

- Low contact resistance;
- Good printable properties;
- Excellent solderability;
- Co-fireable with other Analog ™ pastes for solar cells metallization.

TRANSPORTATIONS

Tightly capped plastic containers adapt to any kind of transport in compliance with the applied regulations.

STORAGE CONDITIONS

In original manufacturer's packaging

- storage place – roofed storage rooms and other covered storage facilities;
- storage temperature: from +5 to +30 °C;
- relative humidity not more than 85%;
- avoid contacts with aggressive environment allowed;
- no direct sunlight allowed.

BEFORE USE

The paste must be kept at the temperature of (22±3) °C for 3 hours and then thoroughly stirred.

THINNING

Thinning is not recommended, since the pastes are supplied at the correct viscosity for application. If thinning becomes necessary to replace evaporated solvent, contact your local Monocrystal representative for thinning recommendation.

TECHNICAL SPECIFICATION	PPAS -7-1	PPAS -052
Dynamic Viscosity, HAAKE viscometer, RV 1, Cone 35/^{o}1, D = 10 s^{-1}, T=21,0±0,1 ^{o}C, Pa·s	40 –70	40 –70
Fineness of Grind, µm, ≤	20	20
Specific Sheet Resistivity (at 15µm, on alumina substrate), mΩ/□, ≤	7	5
Solid Content, %, (±3)	85	85
Shelf Life	6 months	

DIRECTIONS FOR USE	
Printing	250 – 325 mesh
Screen Washing	Butyl acetate, ethyl alcohol
Drying Range	250-300 ^{o}C for 1-5 minutes
Firing Range, ^{o}C	750 – 950 ^{o}C
Firing Time at Peak Temperature, sec.	3 – 90 seconds
Firing Media	Air
Soldering	62Sn/36Pb/2Ag at 220 – 240 ^{o}C

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