

Al 7540 SC

Application: aluminium paste Al 7540 SC is designed to form a doped p+ layer for use with mono- and multicrystalline silicon p-type wafers. It is a lead-free paste and allow customers to "go green". Special inorganic modifiers enables deep and uniform BSF with very good durability of the final layer. Al 7540 SC is applicable for combined firing with other metallization pastes and shows good compatibility with other Chimet products for solar cell metallization.

BENEFITS

- Stable electrical and mechanical performances for lay-down in a 1.2-1.6 g7cell range (6 inches sq. cells)
- Good efficiency
- Very high adhesion of fired layer
- Undergo water tests
- Environmentally friendly material *
- Smooth surface with no mottling
- Excellent printability
- Easy cleaning (hydrosoluble)

* Al 7540 SC is Pb, Cd and Tl free: this means that Pb, Cd or Tl is not an intentional ingredient in and is not intentionally added to the paste. Trace amounts however may be present.

STANDARD TEST CONDITIONS

Printing: typical industrial parameters: 200 – 280 mesh stainless steel screen, emulsion 15 – 25 µm thickness. Snap off 1.6 – 2.0 mm, speed 180 – 300 mm/s, pressure 60 – 70 N

Drying: 2 min @ 200 – 200 – 230 °C

Firing: 1 – 6: 500-600-650-720-865-910 (setting); peak temperature 780 – 840 °C; belt 6400 – 7200 mm/min.

Table 1. TYPICAL PROPERTIES

Viscosity

40 – 60 Pa *s @ 10s⁻¹

Fineness of gring:

< 16 µm

Conductivity:

10 – 16 mΩ/□

Wet deposit (280 mesh):

5 – 7 mg/cm²

Viscosity test:

TA Discovery HR1 rheometer, cone SST ST 40mm, 4 deg smart-swap

SHELF LIFE

Min. 6 months when properly stored in tightly closed containers at room temperature (< 25°C).

RECOMMENDATION

Before use please stir paste gently with a spatula for homogenisation. Keep paste at room temperature for 12h before opening container.

DISCLAIMER

The data published in this document come from experiments carried out in our laboratories and performed in conditions believed to be the most commonly accepted by the industry. It is the end-user's responsibility to check whether this

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