

Silver Paste Ag 4801 77%

Application: The lead free silver paste Ag 4801 77% is the medium-high resistivity member of the system Ag 480X. It is designed to be screen printed on the float glasses. It satisfies chemical and mechanical resistance and special brownish colour on the air side. Newly developed glass frit composition guarantee good adhesion of the printed film. Ag 4801 77% can be diluted with medium 2002M to tune final current absorption of the circuit: it is recommended not to exceed the 15% when diluting the paste^{#1}.

^{#1} high chemical resistance and high pull strength with large dilutions can be affected by the fired thickness

BENEFITS

- Medium-high resistivity with high solid content to allow good chemicals/mechanicals
- Good mechanical properties (pull and scrape)
- Good chemical properties (0.1N sulphuric acid solution, 80°C, 2h → pass)
- Brownish colour on the air side

STANDARD TEST CONDITIONS

Printing: typical industrial parameters: 200 – 250 mesh stainless steel screen, or 77 – 90 wires polyester screen and 0.35mm minimum line width is recommended.

Drying: 10 minutes, 120°C.

Firing: flash firing @ 740°C, 4 minutes (best conditions).

Table 1. TYPICAL PROPERTIES

Metal content

77.0 %

Viscosity:

28 – 38 Pa*s

Fineness of grind:

< 14 µm

Sheet Resistance:

≥ 5.0 mΩ/□@12 µm

Resistivity:

≥ 6.0 µΩ·cm

Viscosity test:

Viscosimeter Brookfield DV II, small sample adapter 6R, spindle 14 @ 10 r.p.m. and 25.0 (±0.5)°C.

SOLDERING

47% Sn - 40% Pb - 10% - Bi, 3% Ag at 300°C for 10" followed by 5" of cooling under tool pressure (best conditions).

THINNERS

Thinning is not recommended; the paste is optimized to the correct viscosity for screen printing. Use the Chimet 0201IT to replace solvent.

SHELF LIFE

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

RECOMMENDATION

Before use please stir paste gently (to avoid bubble entrapment) 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 product can be efficiently used in his specific process and under his specific industrial conditions which Chimet can neither control nor foresee. Chimet makes no warranties expressed or implied arising from the product use. Chimet specifically disclaims any liability for consequential or incidental damages of any kinds, including lost profits.

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