

C-1399 Specification

1. Scope:

The specification refers to the Ag/Pt conductor pastes for steel

2. Summary:

2.1) Transportation:

Be transported by post, train and plane.

2.2) Recommended Processing Procedures:

Environmental Temperature: 22°C-28°C.

Relative humidity: 35%-55% .

Substrates: 96% Al₂O₃, roughness of surface is 3-5μm

Printing: 200-325 mesh stainless steel screen

Leveling: 2-5 min at room temperature

Drying: 100-150°C, 10-15min

Firing: Firing in oven of air temperature,

peak temperature :840°C-870°C,peak time: 9-11min.

Thinner: V-100

3. Features:

3.1) Paste:

	Property	Standard	Measuring methods and conditions
1	FOG	≤10 μ m	FOG Guager Testing
2	Viscosity	150-300Pa.S	Brookfield HBT Viscositor: spindle #14, 25±1°C,10rpm

3.2) Fired film:

Produced according to 2.2), fired thickness :9-13 μ m.

	Property	Standard	Measure and condition
3	Resistivity	≤6m Ω /□	The test size:0.6mm×60mm
4	Adhesion Initial Adhesion Aged Adhesion	≥35N ≥18N	The test size: peel pulling force for 2mm×2mm Aged condition: 63/37SnPb Solder Paste, at 150 °C . Keep the temperature for 24 hours
5	Solder Diffusion	≥6.0 φ mm	On 10mm×10mm fired film, put soldering tin block of diameter 4mm, thickness 2.8mm, at 230°C constant temperature, after keeping the temperature 10s,test the diameter of the thawed solder .
6	Solder leach resistance	≥2cycles	230°C, dip 10 seconds for one time

3.3) Testing Methods:

Periodic Testing for item 1 -6 the inspection result will be saved for three years

4. Inspection report:

The report is offered in cartons of the pastes .The report covers the following items:

- 1) Fog (μm)
- 2) Viscosity (Pa.S)
- 3) Resistor rate (mΩ)
- 4) Adhesion
 - Initial adhesion (N)
 - Aged adhesion (N)
- 5) Solder diffusion (φ mm)
- 6) Solder leach resistance (cycle)

5. Storage and Shelf Life

Should be stored and sealed at ambient temperature 5-25°C . Shelf life of material in unopened containers is a minimum of 6 months.

6. Packing:

Should be contained in polythene cans, standard net weight is 500g/can, 1000g/can, 1500g/can. The packaging can is affixed with the product label, and the label indicates: product type, specification, production batch number, net weight, leather weight, factory date, effective date, precautions, storage temperature, etc. The outer package should be ice packs padded foam cartons.

7. Note:

Remove the paste from the freezer 24 hours before use and place it in the operation room to reach the same ambient temperature (22~28°C) .

If dilution, use a low speed mixer to stir or manually stir for 10~30 minutes, static after stirring for 30 minutes and let all the resulting bubbles burst out. Special diluent may be added when adjusting the viscosity, but the amount shall not exceed 1%.

Pay attention to the storage and use of the printing substrate. The surface of the substrate must be completely clean and kept dry when printing.

Do not put too much slurry in the screen at one time, which will cause the compression deformation of the screen and affect the printing accuracy.

Mass production, attention should be paid to the consistency of the printing surface, and it is recommended to measure the wet film thickness frequently to ensure the printing effect.

After printing should be dried in a short time to avoid dust contamination.

Drying needs to be completely thorough (temperature and time), to avoid the surface drying and internal drying phenomenon.

8. Note:

Using materials in the condition of good ventilation

Avoiding human beings inhaling volatile gas

Avoiding the skin touching the materials

Being away the fire