

Glass Paste for silver electrode overcoating of Dye Sensitized Solar Cell 5094D1

● Glass Paste Characteristics

- Suitable for overcoating of silver electrodes (lines) of Dye Sensitive Solar Cell (DSSC)
- Resistant to the electrolytic solution of Dye Sensitized Solar Cell
- Firing temperature - ~520°C on the Soda Lime Glass Substrates.
- Lead-Free Composition comply with ROHS

● Glass Property


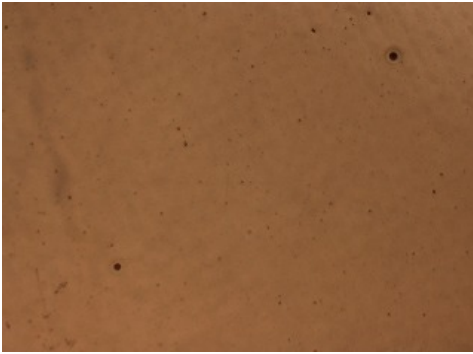
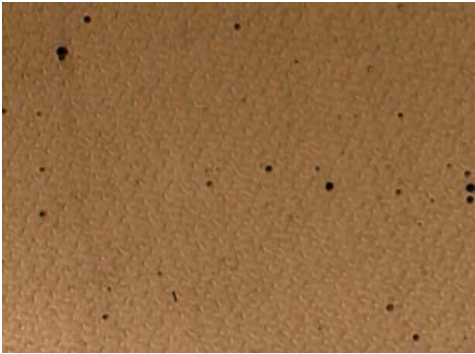
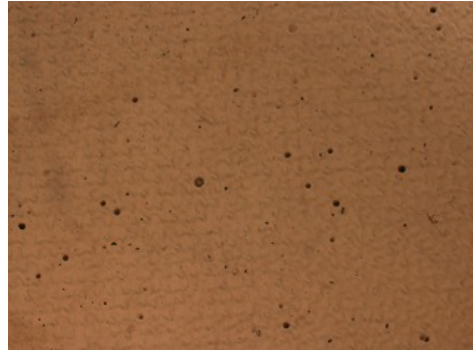
Code	Glass Type	Firing Conditions	Thermal Expansion	Softening Point	Particle Size (D50)	Weight Decrease by the electrolytic solution(%) *1
			($\times 10^{-7}/^{\circ}\text{C}$)	($^{\circ}\text{C}$)	(μm)	
5094D1(developing)	SiO ₂ -B ₂ O ₃ -Bi ₂ O ₃	520°C × 60min	85	510	0.9	0.0

Determination of Weight Decrease by the electrolytic solution

1. Firing the molded Glass Powder 1094D1 for 60 minutes at 520°C.
2. Converting the fired sample to cylindrical shape in 20mm height and 5mm diameter.
3. Measuring the sample weight using analytical balance.
4. Soak the sample for a week in electrolytic solution at 90°C.
5. Measuring the sample weight V (after soaking) using analytical balance.
6. Weight decrease can be calculated using the following equation,

$$\text{Weight Decreasing(\%)} = \{(V_0 - V) / V_0\} \times 100$$

● Pictures of Surface before and after soaking

	before soaking	after soaking(90°C-1week)
Firing 520°C × 60min		
Firing 500°C × 60min		

Printing Conditions: Screen printing using 200 mesh screen on the soda lime glass substrate
 Inspection Conditions: Optical microscope at 20x

※ Product information is subject to change without notice.