UV-curable solder mask

(KSM-180BL)

1 Features

KSM-180BL series UV-curable solder mask.Good over the net.Fast curing.With excellent adhesion,chemical resistance and insulation.Suitable for single panel substrate

1.Specifications

Items	Features	Notes
Product Type	KSM-180BL	
Color	blue	
Fineness	≤8μm	0~25μm Fineness gauge
Viscosity (25℃)	170±20dPa·s	VT-04F
Density(25℃)	1.20~1.40g/ml	
Curing energy	1200~1800mJ/cm^2	The effective value through the polyester film
Package	5kg/Barrel ； 10kg/Box	Can be adjusted according to customer requirements
Shelf time	Store below 25℃ in the dark	Store below 25℃ in the dark

2process

Please correct the control and maintenance of the following operating conditions , when the operating conditions change , may affect the quality and reduce lead trustworthiness

2.1Process parameters

(1) Mixed : Before use, should stir 15 to 20 minutes ;

(2) Pre-treatment : chemical treatment combined with mechanical polishing , to ensure that the surface of the active substance no effect of residual ink adhesion ;

(3) Mesh selection : 200 ~ 300mesh；

(4) Curing :1200 ~ 1800mJ / cm2 (high pressure mercury lamp or metal halide)。

2.2Process Considerations

(1) Keep the work environment clean , keep the board no dust contamination or residual impurities ;

(2) Plate surface contamination will lead to lower quality and trustworthiness of ink ;

(3) Operation should be carried out in a clean environment , clean room temperature 20 ~ 25 ℃, relative humidity of 50 to 60% ;

(4) Avoid UV light and sunlight irradiation straight , the ideal operation should be carried out in yellow light ;

(5) Cans after the ink used in the recovery operation ambient temperature , stir before use ;

(6) Do not add thinner when using ink, if you have to add, please consult us. Because diluted ink will affect various properties of the ink, this model does not apply common solvent inks ;

(7) The thickness of the cured ink to 12 ~ 16μm is appropriate , too thick will affect the ink adhesion , chemical resistance and pencil hardness ;

(8) Curing conditions because of different UV lamps and equipment vary . Please test after test set production conditions and scope . Curing conditions beyond the specified range will affect various properties of the ink

(9) Cleaning stencils , please apply ester solvent , after cleaning and drying can apply again.

3 Ink coating properties

3.1 Main features

Items	Features	Notes

Pencil hardness	≥4H	Pencil harder，JIS K5400 8.4
Adhesion	100/100	Laceration experiment，JIS K5400 8.5
Solder resistance	260±5℃ × 6 seconds × 3 times No blistering and falling off	JIS C6481 5.5
Solvent resistance	No surface quality degradation	Wipe with isopropyl alcohol for 100 times
Insulation performance	$\geq 1.0\times10^{12}\Omega$	IPC-TM-650 TM 2.6.3.1
Electromigration	No electromigration; The insulation resistance does not drop by an order of magnitude	IPC-TM-650 TM2.6.1.4
Dielectric strength	No change in ink	IPC-TM-650 TM 2.5.6.1
Moisture stability	There is no irreversible change on the surface	IPC-TM-650 TM 2.6.11
Environmental standards	Meet ROHS directive requirements	SGS detection
Resistance to flame	UL94 V-0	Certified number： UL-E189612

Attention :

1. The base and hardener should be mixed according to the ratio and stirred thoroughly before using.
2. We will offer you special diluent if the ink need dilute.
3. The values above are based on experiments in our lab. Experiments need to be carried out in order to get proper using condition.