



UNION INKS

Product Information

UV CURABLE NOTATION INK

99-6900

TIL NO : 715a

PROPERTIES

UV Curing screen printing marking ink for application to printed circuit boards. This ink:

- offers good adhesion to copper, epoxy-based and phenolic boards as well as to solder masks.
- excellent resistance to flowed soldering alloys.
- withstand most aggressive solvents and fluxes.
- excellent screen printing definition and opacity.
- is nearly odourless and has low irritation index.
- available in White (99-6900W), Black (99-6900K), Yellow (99-6900P)

TECHNICAL DATA

- specific weight : 1.1 - 1.3 at 25⁰ C.
- viscosity (Brookfield Viscometer, spindle 7 speed 50rpm at 28⁰ C) : 120poise, 140 and 200 poise.
- solids content : 100 %
- flash point : 100⁰ C
- curing speed : about 4-5 metres per minute with a 3x200W/inch UV lamps.
Energy dosage of 2600 millijoules on UV-A Spectral Response Curve (300 - 400 nm peak: 365nm).
- hardness of film : 3 - 4 H
- shelf life : 6 months from manufacturing date at room temperature of 25⁰ C.

SURFACE PREPARATION

Oxidation or other contaminants like grease or oil may lower ink adhesion. It is therefore necessary to clean the surface by wet mechanical brushing followed by thorough drying to get good ink adhesion. Printing on solder masks only requires light cleaning to remove dust if the surface has not been contaminated.

SCREENS

Stencils may be either direct, indirect or direct/indirect with either polyester monofilament 90-120T per cm.

PRINTING

Carefully stir ink prior to use. Use well sharpened squeegees, 75 - 80 shore hardness.

CURING

Using UV dryers equipped with 3 x 200 watts per inch metal halide or mercury vapour lamps, ink printed with polyester 120T per cm, curing is achieved at about 4.5 to 5 metres per min. or the energy dosage required to cure is about 1800 millijoules on UV-V Spectral Response Curve or 2600 millijoules on UV-A Spectral Response Curve (300 - 400nm peak: 365nm).

It is important not to over cure the solder resist ink film if overprinting of Notation ink is required as this will affect intercoat adhesion. If overprinting is required, we would suggest that the first curing energy dosage to be about 1200 millijoules on UV-A Spectral Response Curve.

WASHING UP

Uniwash 99-SW113 is recommended.

PROCESS NOTES

Direct or prolonged exposure to light sources with UV contents should be avoided. Commercially available fluorescent lamps may be used in the work area, provided that they are fitted with a diffuser. Avoid contact with skin and eyes. If the ink comes into contact with the skin, promptly wash off with water and soap, do not use solvents. Work area has to be effectively ventilated.

WARNING

These information are given in good faith, but without any guarantee as the printing conditions of our inks are beyond our control. In the event of complaints, the ink supplier may replace free of charge the unused ink, declining any other responsibilities.