

Technical Data Sheet

TAIYO UVR Series LEGEND INKS

UV CURE LEGEND INK

- ③ **Screen Print Application**
- ③ **Available in:**
 - Black (UVR-182E)**
 - White (UVR-110W)**
 - Yellow (UVR-120Y)**
- ③ **Withstands ENIG & Immersion Tin**
- ③ **RoHS Compliant**
- ③ **UVR-110W – Halogen-Free (340ppm)**
- ③ **Excellent Heat Resistance in HASL**
- ③ **Low Odor**



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PROCESSING PARAMETERS FOR UVR LEGEND INKS

TAIYO UVR-182E (black), **UVR-110W** (white), and **UVR-120Y** (yellow) are single-component, UV-curable legend ink having outstanding printability, adhesion, and color retention. The short UV-curing time is most suitable for high volume and/or fast throughput requirements. **UVR Legend** inks are available in 1 Kg-set size. All Taiyo America products comply with the Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the Restriction of the use of certain Hazardous Substances (RoHS) in electrical and electronic equipment.

UVR SERIES COMPONENTS

UVR-182E

Color	Black
Non-Volatile Content	100%
Viscosity	180 – 210 poise
Specific Gravity	1.40 – 1.60
Warranty Period	9 months at $\leq 68^{\circ}\text{F}$

UVR-110W

Color	White
Non-Volatile Content	100%
Viscosity	110 – 130 poise
Specific Gravity	1.40 – 1.60
Warranty Period	9 months at $\leq 68^{\circ}\text{F}$

UVR-120Y

Color	Black
Non-Volatile Content	100%
Viscosity	190 – 220 poise
Specific Gravity	1.40 – 1.60
Warranty Period	9 months at $\leq 68^{\circ}\text{F}$

MIXING

UVR Legend ink should be mixed before being applied to the screen to ensure it has not separated during storage.

PRE-CLEANING

Before printing, residues and foreign material remaining on the solder mask surface should be completely removed to optimize adhesion of legend inks.



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SCREEN PRINTING For screen printing by hand or mechanical methods, a monofilament polyester screen between 200 and 305 mesh counts per inch is recommended. A coating thickness range between 0.5 mils - 0.7 mils is preferred.

- Screen Mesh: 200 – 305
- Squeegee: 70 – 80 durometer
- Printing Mode: Flood / Print

UV Cure UV energy readings should be 2.5 – 4.0 joules. The following table can be used as a guide to determine the optimum cure conditions with your particular UV curing unit. The curing conditions may have to be adjusted depending upon ink thickness and color.

Type of UV Lamps	Power (Watts/cm)	Conveyor Speed
High Pressure Mercury Vapor	80 W/cm x 3 lamps	2.5 - 3.5 m/min
	120 W/cm x 3 lamps	3.0 - 5.0 m/min
Metal Halide	80 W/cm x 3 lamps	3.0 - 5.0 m/min
	120 W/cm x 3 lamps	4.0 - 6.0 m/min

For Process Optimization please contact your local Taiyo America Representative

Taiyo America, Inc. (TAIYO) warrants its products to be free from defects in materials and workmanship for the specified warranty period as stated above provided the customer has, at all times, stored the ink at a temperature of 68°F or less. TAIYO accepts no responsibility or liability for damages, whether direct, indirect, or consequential, resulting from failure in the performance of its products. If a TAIYO product is found to be defective in material or workmanship, its liability is limited to the purchase price of the product found to be defective. TAIYO MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. TAIYO'S obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages or delay. If requested by TAIYO, products for which a warranty claim is made are to be returned transportation prepaid to TAIYO'S factory. Any improper use or any alteration of TAIYO'S product by the customer, as in TAIYO'S judgment affects the product materially and adversely, shall void this limited warranty.

