

TECHNICAL DATA SHEET

TAIYO S-200 Series

THERMAL CURE LEGEND INK

 **Screen Print Application**

 **Available in:**

Black (S-200E)

Yellow (S-200Y NP)

 **Withstands ENIG & Immersion Tin**

 **RoHS Compliant**

 **Excellent Heat Resistance in HASL**

 **Low Odor**



Always on your side.

Revised September 2013

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PROCESSING PARAMETERS FOR S-200 LEGEND INKS

Taiyo **S-200E (black)** and **S-200Y NP (yellow)** are two-component, thermal curable legend inks having outstanding printability, adhesion, and color retention. **S-200 Series** 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.

S-200 SERIES COMPONENTS

	S-200E	/	HD-3
Mixing Ratio	100 parts		8 parts
Color	Black		White
Warranty Period	6 months at $\leq 68^{\circ}\text{F}$		

	S-200Y NP	/	HD-3
Mixing Ratio	100 parts		8 parts
Color	Yellow		White
Warranty Period	6 months at $\leq 68^{\circ}\text{F}$		

MIXING

S-200 Series is supplied in pre-measured containers with a mix ratio by weight of 100 parts **S-200** and 8 parts **HD-3**. **S-200 Series** can be mixed by hand with a mixing spatula for 5 – 10 minutes. Mixing can be done with a mechanical mixer at low speeds to minimize shear thinning for 5 – 10 minutes. Also, mixing can be done with a paint shaker for 5 minutes. The pot life after mixing is 8 hours. The S-200 may be diluted with glycol ether and propylene glycol ether solvents.

PRE-CLEANING

Prior to legend ink application, the surface needs to be free of contaminates. We recommend that the surface be cleaned chemically to make sure there are no contaminates on the surface. It is not a good idea to mechanically scrub the solder mask prior to applying the legend ink.



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- SCREEN PRINTING** Method: Single Sided and Double Sided Screening
- Screen Mesh: 200 – 305
 - Screen Mesh Angle: 22.5° Bias
 - Screen Tension: 20 - 28 Newtons
 - Squeegee: 60 – 80 durometer
 - Squeegee Angle: 27 – 35°
 - Printing Mode: Flood / Print

- FINAL CURE** **S-200 Series** needs to be thermally cured to insure optimal final property performance. Thermal curing can be done in a batch oven or conveyorized oven.
- Temperature: 300°F (149°C)
 - Time at Temperature: 25 – 30 minutes

For Process Optimization please contact your local Taiyo America Representative

FINAL PROPERTIES FOR S-200 SERIES

Test	Test Method / Requirement	Results
Pencil Hardness	Internal Test	8H
Adhesion after Cure	Rigid – Cu, Ni, FR-4	Pass
Adhesion after Soldering	Internal Tape Test	Pass
Resistance to Solder	No Solder Sticking	Pass

Taiyo America, Inc. (TAIYO) warrants its products to be free from defects in materials and workmanship for the specified warranty period (**S-200 Series /HD-3 Warranty period is 6 Months**) 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.



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