

TAIYO AMERICA, INC.
 2675 Antler Drive, Carson City, NV 89701
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CERTIFICATE OF ANALYSIS and CONFORMANCE

This is to certify that the following product has been inspected prior to sale and shipment, and complies with Taiyo America's manufacturing specifications for this product.

This product meets all the requirements of IPC-SM-840E Classes H and T and Bellcore (Telecordia) GR-78-CORE and is UL recognized 94V-0 (File #E166421, UL Name: PSR-4000DE).

PSR-4000HFX Satin Black DI Lot # **9050347** Mfg. Date: **5-03-19**
 Warranty Ends: **2-03-20**

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>MANUFACTURING SPECIFICATION</u>	<u>RESULT</u>
VISCOSITY	Toki Sangyo RE100U Viscometer 5 rpms @ 25°C	After mixing: 220 - 270 ps	231 ps
THIXOTROPIC INDEX	Toki Sangyo RE100U Viscometer Viscosity ratio: 5 rpm / 50 rpm	After mixing: Report Only	1.3
FINENESS OF GRIND	TAI-0-0002	5 microns maximum	5 microns
VISUAL EXAMINATION	Microscopic examination: 1. 1-mil drawdown of wet film	No bubbles, pits, voids, particles, color differences.	Passed <input checked="" type="checkbox"/>
	2. Wet film drawdown on grind gauge	No bubbles, pits, voids, particles, color differences.	Passed <input checked="" type="checkbox"/>
SCREENABILITY	Visual inspection of screen printed panel	No surface defects, such as bubbles, pinholes, etc.	Passed <input checked="" type="checkbox"/>
TACK-DRY	Hot air convection oven 80°C / 30 minutes	Tack-free to the touch	Passed <input checked="" type="checkbox"/>
IMAGING	ORC HMW 680GW - 7 kW 500 mJ / cm ² (Under Artwork) Horizontal Developer - 1% Na2CO3 30°C (86°F) / 60 secs., 28 psi	Stouffer 21 step: 10 - 14 (clear on copper)	13
RESISTANCE TO SOLDERING (*)	260°C (500°F) / 30 sec x 1 cycle Rosin-based flux	No discoloration, peeling, or blistering	Passed <input checked="" type="checkbox"/>
SOLVENT RESISTANCE (*)	Immersion in PM Acetate 20°C / 20 mins.	No swelling, softening, or blistering	Passed <input checked="" type="checkbox"/>
PENCIL HARDNESS (*)	TAI-0-0020	6H or greater	8H
ADHESION (*)	TAI-0-0021	100/100 on copper	Passed <input checked="" type="checkbox"/>

(*) - Final cure **WARRANTY EXTENSION** minutes @ 150°C (302°F) in a convection oven

This product has been retested by the Taiyo America Quality Control department and has been granted a warranty extension.

Warranty period ends:
03/03/20

Authorized By:
 Luis Marquez
 QC Supervisor

Verified By:

[Signature] Q.C. SUPERVISOR 5/8/19
 Name, Title, Date