

TAIYO AMERICA, INC.
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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-4000BV).

PSR-4000 (AUS5) Lot # 0031117 Mfg. Date: 3-11-20
Warranty Ends: 10-11-20

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>MANUFACTURING SPECIFICATION</u>	<u>RESULT</u>
<u>VISCOSITY</u>	Toki Sangyo RE100U Viscometer 5 rpms @ 25°C	Before mixing: 300 - 360 ps After mixing: 200 - 240 ps	326 ps 229 ps
<u>THIXOTROPIC INDEX</u>	Toki Sangyo RE100U Viscometer Viscosity ratio: 5 rpm / 50 rpm	After mixing: 1.0 - 1.4	1.3
<u>FINENESS OF GRIND</u>	TAI-0-0002	15 microns maximum	5 microns
<u>VISUAL EXAMINATION</u>	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"/>
<u>SCREENABILITY</u>	Visual inspection of screen printed panel	No surface defects, such as bubbles, pinholes, etc.	Passed <input checked="" type="checkbox"/>
<u>TACK-DRY</u>	Hot air convection oven 80°C / 30 minutes	Tack-free to the touch	Passed <input checked="" type="checkbox"/>
<u>IMAGING</u>	ORC HMW 680GW - 7 kW 500 mJ / cm ²	Stouffer 21 step: 9 - 12 (clear on copper)	10
	Horizontal Developer - 1% Na ₂ CO ₃ 30°C (86°F) / 60 secs., 28 psi		
<u>RESISTANCE TO SOLDERING (*)</u>	260°C (500°F) / 10 sec x 3 cycles Rosin-based flux	No discoloration, peeling, or blistering	Passed <input checked="" type="checkbox"/>
<u>SOLVENT RESISTANCE (*)</u>	Immersion in PM Acetate 20°C / 30 mins.	No swelling, softening, or blistering	Passed <input checked="" type="checkbox"/>
<u>PENCIL HARDNESS (*)</u>	TAI-0-0020	5H or greater	8H
<u>ADHESION</u>	WARRANTY EXTENSION	100/100 on copper	Passed <input checked="" type="checkbox"/>

(*) - Final cu

WARRANTY EXTENSION
This product has been retested by the Taiyo America Quality Control department and has been granted a warranty extension.
Warranty period ends:
11/11/20

150°C (302°F) in a convection oven

Verified By: [Signature]
Name, Title, Date
P. C. SUPERVISOR 3/20/20

Authorized By:
Luis Marquez
QC Supervisor