

**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-4000BN).

PSR-4000BN White

Lot # 9080737


Mfg. Date: 8-07-19

Warranty Ends: 8-07-20

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>MANUFACTURING SPECIFICATION</u>	<u>RESULT</u>
<b>VISCOSITY</b>	Toki Sangyo RE100U Viscometer 5 rpms @ 25° C	Before mixing: 325 - 375 ps	366 ps
		After mixing: 175 - 225 ps	203 ps
<b>THIXOTROPIC INDEX</b>	Toki Sangyo RE100U Viscometer Viscosity ratio: 5 rpm / 50 rpm	After mixing: 1.2 - 1.6	1.3
		15 microns maximum	5 microns
<b>FINENESS OF GRIND</b>	TAI-0-0002	15 microns maximum	5 microns
<b>VISUAL EXAMINATION</b>	Microscopic examination: 1. 1-mil drawdown of wet film	No bubbles, pits, voids, particles, color differences.	Passed <input checked="checked" type="checkbox"/>
		No bubbles, pits, voids, particles, color differences.	Passed <input checked="checked" type="checkbox"/>
<b>SCREENABILITY</b>	Visual inspection of screen printed panel	No surface defects, such as bubbles, pinholes, etc.	Passed <input checked="checked" type="checkbox"/>
		Tack-free to the touch	Passed <input checked="checked" type="checkbox"/>
<b>TACK-DRY</b>	Hot air convection oven 80° C / 30 minutes	Stouffer 21 step: 9 - 13 (clear on copper)	9
		No discoloration, peeling, or blistering	Passed <input checked="checked" type="checkbox"/>
<b>IMAGING</b>	ORC HMW 680GW - 7 kW 300 mJ / cm <sup>2</sup> (under artwork) Horizontal Developer - 1% Na <sub>2</sub> CO <sub>3</sub> 30° C (86° F) / 60 secs., 28 psi	No swelling, softening, or blistering	Passed <input checked="checked" type="checkbox"/>
		7H or greater	9H
<b>RESISTANCE TO SOLDERING (*)</b>	260° C (500° F) / 10 sec x 3 cycles Rosin-based flux	No discoloration, peeling, or blistering	Passed <input checked="checked" type="checkbox"/>
<b>SOLVENT RESISTANCE (*)</b>	Immersion in PM Acetate 20° C / 30 mins.	No swelling, softening, or blistering	Passed <input checked="checked" type="checkbox"/>
<b>PENCIL HARDNESS (*)</b>	TAI-0-0020	7H or greater	9H
<b>ADHESION (*)</b>	TAI-0-0021	100/100 on copper	Passed <input checked="checked" type="checkbox"/>

(\*) - Final cure for these tests was 60 minutes @ 150° C (302° F) in a convection oven

Verified By:

 Q.C. Supervisor 8/9/19  
Name, Title, Date