## TAIYO AMERICA, INC.

2675 Antler Drive, Carson City, NV 89701 Phone: (775) 885-9959 Fax: (775) 885-9972

## 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-4000JA).

PSR-4000 LDI (US) Black

Lot # 9052987 Mfg. Date: 5-29-19 Warranty Ends: 11-29-19

PROPERTY VISCOSITY  THIXOTROPIC INDEX  FINENESS OF GRIND	TEST METHOD  Toki Sangyo RE100U Viscometer  5 rpms @ 25°C  Toki Sangyo RE100U Viscometer Viscosity ratio: 5 rpm / 50 rpm	MANUFACTURING SPECIFICATION  Before mixing: Report Only After mixing: 220 - 270 ps  After mixing: Report Only	RESI 436 246	ULT ps ps
VISUAL EXAMINATION	TAI-0-0002	5 microns maximum	5 '	microns
· ISOME EXAMINATION	Microscopic examination:  1. 1-mil drawdown of wet film	No bubbles, pits, voids, particles, color differences.	Passed	
	2. Wet film drawdown on grind gauge	No bubbles, pits, voids, particles, color differences.	Passed	
SCREENABILITY	Visual inspection of screen printed panel	No surface defects, such as bubbles, pinholes, etc.	Passed	7
TACK-DRY	Hot air convection oven $80^{\circ}\text{C} / 30 \text{ minutes}$	Tack-free to the touch	Passed	
IMAGING	ORC HMW 680GW - 7 kW 100 mJ / cm <sup>2</sup>	Stouffer 21 step: 12 - 16 (clear on copper)	13	
	Horizontal Developer - 1% Na2CO3 30°C (86°F) / 60 secs., 28 psi	A B		
RESISTANCE TO SOLDERING (*)	260°C (500°F) / 30 sec x 1 cycle Rosin-based flux	No discoloration, peeling, or blistering	Passed	
SOLVENT RESISTANCE (*)	Immersion in PM Acetate $20^{\circ}\mathrm{C}$ / $20$ mins.	No swelling, softening, or blistering	Passed	
PENCIL HARDNESS (*)	TAI-0-0020	6H or greater	84	
ADHESION (*)	TAI-0-0021	100/100 on copper	Passed	V

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

Verified By: = Q.C. SUPERVISOR 6/3/19