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-4000MP).

PSR-4000MP Black DI **Lot #** 0042707 **Mfg. Date:** 4-27-20
Warranty Ends: 4-27-21

PROPERTY	TEST METHOD	MANUFACTURING SPECIFICATION	RESULT
VISCOSITY	Toki Sangyo RE100U Viscometer 5 rpms @ 25°C	After mixing: 140 - 180 ps	148 ps
THIXOTROPIC INDEX	Toki Sangyo RE100U Viscometer Viscosity ratio: 5 rpm / 50 rpm	After mixing: 1.2 - 1.6	1.6
FINENESS OF GRIND	TAI-0-0002	20 microns maximum	15 microns
VISUAL 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 ☑
TACK-DRY	Hot air convection oven 80°C / 30 minutes	Tack-free to the touch	Passed ☑
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: 8 - 12 (clear on copper)	12
RESISTANCE TO SOLDERING (*)	260°C (500°F) / 10 sec x 3 cycles Rosin-based flux	No discoloration, peeling, or blistering	Passed ☑
SOLVENT RESISTANCE (*)	Immersion in PM Acetate 20°C / 30 mins.	No swelling, softening, or blistering	Passed ☑
PENCIL HARDNESS (*)	TAI-0-0020	7H or greater	9H
ADHESION (*)	TAI-0-0021	100/100 on copper	Passed ☑

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

Verified By:
Q.C. Supervisor 5/4/20
Name, Title, Date