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 #** 1040507 **Mfg. Date:** 4-05-21
**Warranty Ends:** 4-05-22

| PROPERTY | TEST METHOD | MANUFACTURING SPECIFICATION | RESULT |
|---|---|---|---|
| VISCOSITY | Toki Sangyo RE100U Viscometer 5 rpms @ 25°C | After mixing: 140 - 180 ps | 151 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 | 17.5 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 / cm² (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 4/6/21
**Name, Title, Date**