

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.

PSR-4000 SW01TA

Lot # **0050747**

Mfg. Date: **5-07-20**

Warranty Ends: **5-07-21**

| <u>PROPERTY</u>                    | <u>TEST METHOD</u>  | <u>MANUFACTURING SPECIFICATION</u>                     | <u>RESULT</u>                              |
|------------------------------------|---|--|--|
| <b>VISCOSITY</b>                   | Toki Sangyo RE100U Viscometer<br>5 rpms @ 25° C   | After mixing: 145 - 175 ps                             | <b>161</b> ps                              |
| <b>THIXOTROPIC INDEX</b>           | Toki Sangyo RE100U Viscometer<br>Viscosity ratio: 5 rpm / 50 rpm  | After mixing: 1.0 - 1.2                                | <b>1.1</b>                                 |
| <b>FINENESS OF GRIND</b>           | TAI-0-0002  | 15 microns maximum                                     | <b>5</b> microns                           |
| <b>VISUAL EXAMINATION</b>          | 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"/> |
| <b>SCREENABILITY</b>               | Visual inspection of screen printed panel   | No surface defects, such as bubbles, pinholes, etc.    | Passed <input checked="" type="checkbox"/> |
| <b>TACK-DRY</b>                    | Hot air convection oven<br>80° C / 30 minutes   | Tack-free to the touch                                 | Passed <input checked="" type="checkbox"/> |
| <b>IMAGING</b>                     | ORC HMW 680GW - 7 kW<br>600 mJ / cm <sup>2</sup><br>Horizontal Developer - 1% Na <sub>2</sub> CO <sub>3</sub><br>30° C (86° F) / 60 secs., 28 psi | Stouffer 21 step: Report Only<br>(clear oh copper)     | <b>8</b>                                   |
| <b>RESISTANCE TO SOLDERING (*)</b> | 260° C (500° F) / 10 sec x 3 cycles<br>Rosin-based flux   | No discoloration, peeling, or blistering               | Passed <input checked="" type="checkbox"/> |
| <b>SOLVENT RESISTANCE (*)</b>      | Immersion in PM Acetate<br>20° C / 20 mins.   | No swelling, softening, or blistering                  | Passed <input checked="" type="checkbox"/> |
| <b>PENCIL HARDNESS (*)</b>         | TAI-0-0020  | 5H or greater  | <b>8H</b>                                  |
| <b>ADHESION (*)</b>                | TAI-0-0021  | 100/100 on copper                                      | Passed <input checked="" type="checkbox"/> |

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

Verified By:

**A. C. SUPERVISOR** 5/15/20  
 Name, Title, Date