# Brumley South, Inc

**NIST Wafer Inspection PSL Calibration Standards**

Effective 5/1/19

<table>
<thead>
<tr>
<th>Standards</th>
<th>DIAMETER PSL (um).155 to 4.99</th>
<th>PRICE</th>
<th>DIAMETER PSL (um).155 to .100</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIST Traceable Standards</td>
<td>4” – 6”</td>
<td>$2,650</td>
<td>4” – 6”</td>
<td>$3,297</td>
</tr>
<tr>
<td>Coverage: Half or Full</td>
<td>8”</td>
<td>$2,950</td>
<td>8”</td>
<td>$3,397</td>
</tr>
<tr>
<td></td>
<td>12”</td>
<td>$4,500</td>
<td>12”</td>
<td>$5,500</td>
</tr>
<tr>
<td>NIST Traceable Standards</td>
<td>4” – 6”</td>
<td>$2,650</td>
<td>4” – 6”</td>
<td>$3,397</td>
</tr>
<tr>
<td>Coverage: SPOT Deposition (1 PSL size)</td>
<td>8”</td>
<td>$2,950</td>
<td>8”</td>
<td>$3,497</td>
</tr>
<tr>
<td></td>
<td>12”</td>
<td>$4,500</td>
<td>12”</td>
<td>$6,000</td>
</tr>
<tr>
<td>Non-NIST Quick Check Standards</td>
<td>4” – 6”</td>
<td>$1,850</td>
<td>4” – 6”</td>
<td>$2,200</td>
</tr>
<tr>
<td></td>
<td>8”</td>
<td>$1,950</td>
<td>8”</td>
<td>$2,200</td>
</tr>
</tbody>
</table>

**Expanded Nano Silicon Standards Service**

KLA-Tencor SP2 & SP5 NIST Custom Standards
Nano Silica Particles in Stock!

<table>
<thead>
<tr>
<th>Half Deposition Coverage (H)</th>
<th>SPOT Deposition Coverage (NIST only) - (C)</th>
<th>Double Deposition Coverage (DD)</th>
<th>Full Deposition Coverage (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSL deposited on the half surface of the wafer.</td>
<td>Spot depositions *1 PSL size per wafer standard *Add’l spot size adds $1000/each to price</td>
<td>PSL deposited across the 3/4 surface of the wafer.</td>
<td>PSL deposited across the entire surface of the wafer.</td>
</tr>
</tbody>
</table>

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**Brumley South, Inc.**

422 N. Broad Street  Mooresville, NC 28115
orders@brumleysouth.com
Tel: 704-664-9251  REV 5-19
HOW TO ORDER:
Please provide a part number with the following information......Wafer size, PSL size and Deposition Coverage. Part numbers start with the letters BSI-XXXXX.

Example: To order a 6” wafer with .126 PSL half deposition -- Part number is BSI-6P126H, where the 6 is a 6” wafer, the P126 the number for .126PSL and the H is for half deposition.

The Details about PSL Standards:
The PSL Contamination Standard is a bare silicon wafer that has microscopic latex spheres deposited on its surface. PSL Contamination Standards (PSLCS) are produced for particle size calibration of instruments that detect particles on the substrate’s surface.

The polystyrene latex (PSL) spheres that are deposited on the PSL Contamination Standard (PSLCS) are highly spherical, have well characterized reproducible optical properties and a tight monodisperse size distribution. These parameters make PSL spheres a Metrology QA accepted Standard for the calibration and monitoring of particle counting instruments. Brumley South supplies these PSL standards in a wide variety of NIST traceable and non-traceable sphere sizes—typically between 0.010 µm and 1000.0 µm.

Brumley South, Inc also has a Deposition Custom Center (DCC) to provide characterization of surface contamination detection instruments; this is a function of substrate type. Such as films or defects present on the substrates. We accomplish this by precisely depositing a known size and distribution of polystyrene latex spheres onto Brumley South or customer-supplied substrates. PSL’s are available in sizes that have traceability paths to the National Institute of Standards and Technology (NIST) as well as non-traceable sphere sizes, contact our Deposition team to learn which ones or available. Particles can be placed on either half of the substrate surface (leaving a clean, blank half for control) or the full surface of the substrate. This is useful for checking side to side sensitivity of tools.

The Deposition Custom Center (DCC) from Brumley South, Inc provides a way for customers to derive the benefits (like tremendous cost savings!) of contamination standards on substrates of their choice. This service provides for custom particle density and size selection, and is leading edge Qualification for developing film standards and references tuned to your specific requirements such as:

We Produce Standards for:

Patterned semiconductor wafers
Wafers with films
Wafers for thin film heads.
Hard disks drive platters with various coatings
Patterned reticles and Mask
Pellicles, either side, different PSL sizes.

Need more information? Please contact the Deposition Custom Center at info@brumleysouth.com

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