

## Brumley South, Inc

### NIST Wafer Inspection PSL Calibration Standards

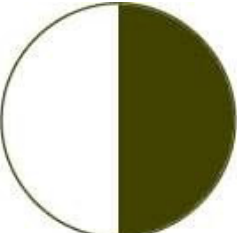
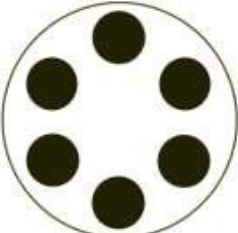
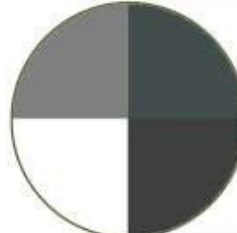

*Order The NIST Standards "3 Wafer Pak" for 30% Savings!*

Standards	DIAMETER .155 to 4.99	PRICE	DIAMETER .126 to .155	PRICE
NIST Traceable Standards Coverage: Half or Full	4" - 6"	\$1,897	4" - 6"	\$2,297
	8"	\$2,097	8"	\$2,397
	12"	\$3,500	12"	\$4,500
NIST Traceable Standards Coverage: Circle Deposition	4" - 6"	\$1,997	4" - 6"	\$2,397
	8"	\$2,197	8"	\$2,497
	12"	\$4,000	12"	\$5,000
Quick Check Maintenance Standards	4" - 6"	\$850	4" - 6"	\$1,200
	8"	\$950	8"	\$1,200

**Call for Quote.**

**.089 to .126 Micron sizes  
NIST Custom Film Standards.**

Micron sizes (Call for availability on other sizes)	.126(P126)	.155(P155)	.162(P162)	.184(P184)	.204(P204)
	.220(P220)	.240(P240)	.269(P269)	.300(P300)	.304(P304)
	.360(P360)	.404(P404)	.494(P494)	.499(P499)	.503(P503)
	.600(P600)	.798(P798)	.802(P802)	.809(P809)	1.02(1P02)
	1.112(1P112)	1.30(1P30)	1.58(1P58)	2.013(2P013)	
	3.06(3P06)	4.0(4P00)	4.99(4P99)		

Half deposition coverage (H)	Circle dep. coverage (C)	Double dep. coverage (custom)	Full deposition coverage (F)
			

### Brumley South, Inc.

422 N. Broad Street Mooresville, NC 28115  
Tel: 704-664-9251 REV 9-11

Email: [info@brumleysouth.com](mailto:info@brumleysouth.com)

Web: [www.brumleysouth.com](http://www.brumleysouth.com)

PSL deposited on the half surface of the wafer.	Spot depositions	PSL deposited across the 3/4 surface of the wafer.	PSL deposited across the entire surface of the wafer.
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## 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:

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.

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## Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results

<http://physics.nist.gov/Pubs/guidelines/contents.html>

We use the World Finest PSL Standards from: <http://www.dukescientific.com/>

Need more information? Please contact the Deposition Custom Center at [info@brumleysouth.com](mailto:info@brumleysouth.com)

And discuss your requirements with a sales Engineer.

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