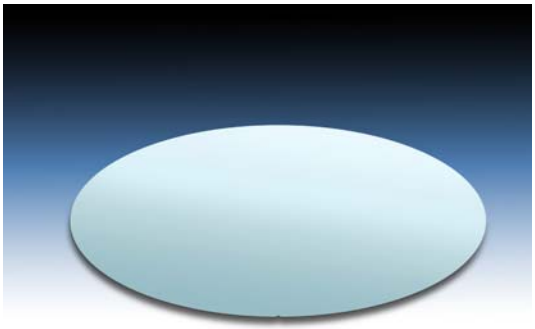
CONTAMINATION

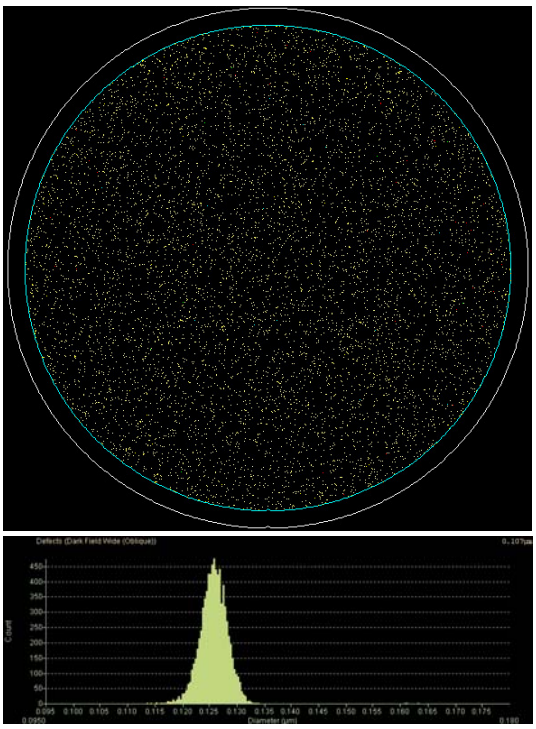
VLSI Standards

Absolute Contamination Standards

SMALL OR LARGE, FIND PARTICLES THAT COUNT. The Absolute Contamination Standard (ACS) is used to calibrate instruments which size and detect particles on the surface of bare silicon wafers. Use ACS to characterize particles, before particles characterize products.

Shown on the left is an Absolute Contamination Standard, appearing as a bare wafer to the naked eye. On the right is a particle map and histogram of the same wafer acquired with a Scanning Surface Inspection System.





PRODUCT DESCRIPTION

The Absolute Contamination Standard is built by depositing highly spherical polystyrene latex (PSL) spheres which have well-characterized optical properties and a very tight monodisperse size distribution. These parameters make PSL spheres a useful material for the calibration and monitoring of instruments that measure and count particles. VLSI Standards supplies Absolute Contamination Standards with a wide variety of traceable to SI Units through NIST sphere sizes in the range between 0.040 µm and 4.0 µm. Standards with smaller or larger sphere sizes may be special ordered.

The calibration certificate includes the approximate number of particles deposited on the wafer. This is not a traceable to SI Units through NIST value, as the Absolute Contamination Standard is designed to calibrate particle size, and not particle count. Background contamination is kept at an extremely low level and is defined on the measurement certificate. These characteristics of the standard ensure a highly monodispersed population of spheres on the substrate.

PRODUCT SPECIFICATIONS

- **SEMI Specification Silicon Wafers**
  100 mm, 125 mm, 150 mm, 200 mm, and 300 mm diameter silicon wafers
- **Polystyrene Latex Spheres**
  From 40 nm up to 4 micron*
- **Traceability**
  PSL diameter traceable to SI Units through NIST.

** Sizes in other ranges may be available. Please check with VLSI Standards.*

Revision ACS 041512
Specifications subject to change.

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