



-PRODUCT SPECIFICATION-

Dust Free™ Ultra High Pure Silicon Coating (99.999%)[▲]

The dense, high performance, strongly adherent, conformal coating of silicon with excellent surface smoothness is deposited using Surmet's proprietary technology. Excellent adhesion and compliance on a wide variety of substrates lead to totally dust free parts that can be wipe-cleaned with solvents and cleaners as necessary.

Property	Dust Free™ UHP Silicon
Substrate	Metallic and Ceramics (AlN, Al ₂ O ₃ , Quartz, PSZ, Graphite, etc.) surfaces; Also polymers
Structure	Amorphous contains hydrogen
Deposition Temperature, °C	Below 150
Use Temperature, °C	-50 to 600
Coating Thickness, μm	A few nm to over 150μm
Substrate Size	Up to 36"
Substrate Geometry	Any shape including complex ones
Electrical Resistivity, Ω-cm	5 x10 ⁸ Ω-cm, lower values possible
Hardness, DPHN	600
Wear/Abrasion resistance	Good
Corrosion Resistance	Excellent resistance in aqueous, acidic and alkaline environments
Applications	<ul style="list-style-type: none"> • Particle reduction in semiconductor wafer processing • High precision optical mirrors for space and earth applications
Special Property	<ul style="list-style-type: none"> • Ultra high pure Si • Low residual stress • Dense, hard and micro-conformal • Can be single-point diamond turned to optical finish

▲Patent Pending