



**-PRODUCT SPECIFICATION-**

## Dust Free™ Ultra High Pure Silicon Coating (99.999%)<sup>▲</sup>

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

▲Patent Pending