



**-PRODUCT SPECIFICATION-**

## TranSiMax™ Coating

Surmet uses its innovative low temperature vacuum plasma process to deposit a series of **“Silicon Nitride”** coatings for various industrial applications including semiconductor equipment OEMs. Besides, the coating is also suitable for high-temperature oxidation/corrosion protection of ceramic materials. Typical properties of Surmet’s SiN coatings are listed below:

Property	TranSiMax™
Substrate	Most metals and ceramics
Structure	Amorphous
Deposition Temperature, °C	250
Use Temperature, °C	1000
Coating Thickness, μm	A few nm to over 100 μm
Substrate Size	Up to 36”
Substrate Geometry	Any shape including complex ones
Electrical Resistivity, Ω-cm	~10 <sup>13</sup>
Hardness, DPHN	1200
Wear/Abrasion resistance	Very good
Corrosion Resistance	<ul style="list-style-type: none"> <li>• Very good high temperature oxidation resistance in air up to 1000°C;</li> <li>• Excellent aqueous corrosion resistance</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Particle reduction during semiconductor wafer processing;</li> <li>• Oxidation/corrosion protection</li> </ul>
Special Property	<ul style="list-style-type: none"> <li>• Optically transparent;</li> <li>• Excellent breakdown voltage</li> </ul>