



**-PRODUCT SPECIFICATION-**

## Surmet Black Beauty™

Attractively dark in appearance, Surmet Black Beauty™ is a high performance lubricious coating, which is strong as diamond and smooth as silk. The coating is bio-compatible, wear resistant, corrosion resistant, and electrically insulating. The excellent properties of the coating makes it very attractive for many applications.

Property	Surmet Black Beauty™
Substrate	Metals, Ceramics (AlN, Al <sub>2</sub> O <sub>3</sub> , Quartz, PSZ, Si, Graphite), and many Polymers
Structure	Amorphous, DLC plus fluoro polymeric
Deposition Temperature, °C	300
Use Temperature, °C	250
Coating Thickness, μm	10-25
Substrate size	Up to 36"
Substrate Geometry	Any shape including complex ones
Electrical Resistivity, Ω-cm	~10 <sup>12</sup>
Co-efficient of friction	0.01-0.02
Hardness, DPHN	6000
Wear/Abrasion resistance	Good
Corrosion Resistance	Most acids, alkalis, fluxes and solders
Applications	<ul style="list-style-type: none"> <li>• Applications in moving parts such as sliding contacts</li> <li>• Electrically insulating components</li> <li>• Thermostat testing equipments</li> </ul>
Special Property	<ul style="list-style-type: none"> <li>• Attractively dark in color</li> <li>• Preserves the metallurgy of the substrate</li> <li>• Biocompatible</li> <li>• Non-throbogenic</li> <li>• Hydrophobic in nature (contact angle &gt;100° in water)</li> </ul>