



-PRODUCT SPECIFICATION-

Ziramic™ Hard Coating

Ziramic™ is a proprietary, ceramic-metal coating based on a complex compound of zirconium metal. The coating is applied by Surmet's proprietary ion plating technology at low temperatures. Ziramic™ technology extends PVD coating beyond carbide and high-speed steel to heat sensitive steels and other materials.

Property	Ziramic™ Hard Coating
Substrate	High speed steels, carbon steel, stainless steel, tool steels (A2, M2, D2)
Structure	Microcrystalline; Multilayered structure
Deposition Temperature, °C	350
Use Temperature, °C	500
Coating Thickness, μm	1-2
Substrate Size	Up to 16"
Substrate Geometry	Any shape including complex ones
Electrical Resistivity, Ω-cm	10 ⁻⁴
Co-efficient of friction	0.18
Hardness, DPHN	2000
Wear/Abrasion resistance	Excellent Wear Resistance, superior to TiN
Corrosion Resistance	<ul style="list-style-type: none"> • Oxidation resistant up to 500°C in air. • Corrosion resistant to most acids and alkalis.
Applications	<ul style="list-style-type: none"> • Wear resistant coating on cutting tools such as end mills, taps, chasers, reamers, punches, etc; • Plastic processing
Special Property	<ul style="list-style-type: none"> • Superior wear resistance; • Excellent release properties