

# CatArc® ZrN COATING

## Cathodic Arc Deposition: Zirconium Nitride

CatArc® ZrN is a good general purpose coating deposited using our patented switched cathodic arc process. The very low deposition temperature of 400°F makes it ideal for temperature sensitive substrates. ZrN is a very attractive light gold color and is used extensively in wear-resistant decorative applications. Due to its high lubricity, it is a good candidate for machining non-ferrous metals such as titanium, brass, copper and aluminum.

### Features and Benefits

High Hardness	Superb Ductility
High Lubricity	Decorative Uses
Unique Color	Erosion Resistance

### Properties

○ Coating Chemistry:	Zirconium Nitride (ZrN)
○ Composition:	Single Layer
○ Color:	Light Gold

### Specifications

○ Standard Thickness:	1.0 - 2.0 Microns (.00004 - .00008 Inches)
○ Application Range:	1.0 - 5.0 Microns (.00004 - .0002 Inches)
○ Micro-Hardness:	2800 Vickers
○ Temperature Stability:	565 °C (1050 °F)
○ Coefficient of Friction:	.50

### Applications

○ Drilling	○ Tapping	○ Trimming	○ Sawing
○ Milling	○ Reaming	○ Blanking	○ Threading
○ Turning	○ Slotting	○ Piercing	○ Decorative Hardware

### Work Piece Materials

○ Titanium Alloys	○ Brass	○ Bronze	○ Wood
○ Copper	○ Cast Iron	○ Graphite	
○ Aluminum	○ Plastic	○ Nickel Alloys	

### Tooling Materials

○ High-speed Steel	○ Solid Carbide
○ Brazed Carbide	○ Powdered Metals



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