

CatArc® CrN COATING

Cathodic Arc Deposition: Chromium Nitride

CatArc® CrN is a tough lubricious coating deposited using our patented switched cathodic arc process. The very low deposition temperature of 400°F makes it ideal for temperature sensitive materials. CrN is an extremely tough coating and is ideal for metal-forming / stamping and similar applications.

Features and Benefits

Low Coefficient of Friction	Excellent Adhesion
Toughness	Superior strength and crack resistance
Dense Microstructure	Resist abrasive wear, metal on metal wear, galling and corrosion

Properties

○ Coating Chemistry:	Chromium Nitride (CrN)
○ Composition:	Single Layer
○ Color:	Silver

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:	700 °C (1292 °F)
○ Coefficient of Friction:	.32 to .35

Applications

○ Stamping	○ Die Casting	○ Extruding
○ Punching	○ Parabolic Drilling	○ Roll Forms
○ Drawing	○ Forming	○ Automotive Components
○ Injection Molding	○ Swaging	○ Tapping

Work Piece Materials

○ Die Steel	○ Stainless Steel	○ Carbon Steel
○ Copper	○ Brass	○ Bronze

Tooling Materials

○ A2, D2	○ O1	○ 4340
○ S-Series	○ CPM	○ High Speed Steel
○ H13	○ 4140	○ Carbide



contact our sales professionals today!