



Coating Selection Application Guide

APPLICATION	COATING SELECTION	COATING SPECIFICATIONS
<p>Stamping, Forming Punching, Swaging Drawing, Extruding Injection Molding, Roll Forms Die Casting, Automotive Components Parabolic Drilling, Tapping</p>	<p>CatArc® CrN COATING Cathodic Arc Deposition: Chromium Nitride</p>	<p>Standard Thickness 1.0 - 2.0 Microns (.00004 - .00008 Inches) Application Range: 1.0 – 5.0 Microns (.00004 – .0002 Inches) Micro-Hardness: 2800 Vickers Coefficient of Friction .32- .35 Temperature Stability: 700 °C (1292 °F)</p>
<p>General purpose cutting (Drilling, Tapping, Milling, Reaming, Turning) Plastic Injection Mold cavities and hot runner nozzles Metal Forming and Punching</p>	<p>CatArc® TiN COATING Cathodic Arc Deposition: Titanium Nitride</p>	<p>Standard Thickness: 1.0 – 2.0 Microns (.00004 – .00008 Inches) Application Range: 1.0 – 5.0 Microns (.00004 – .0002 Inches) Micro-Hardness: 2700 Vickers Coefficient of Friction .39 - .42 Temperature Stability: 450 °C (842 °F)</p>
<p>General Purpose Drilling, Milling, Turning, Tapping, Reaming, Slotting, Trimming, Blanking, Piercing</p>	<p>CatArc® TiCN COATING Cathodic Arc Deposition: Titanium Carbonitride</p>	<p>Standard Thickness: 1.0 – 2.0 Microns (.00004 – .00008 Inches) Application Range: 1.0 – 5.0 Microns (.00004 – .0002 Inches) Micro-Hardness: 2800 Vickers Coefficient of Friction .40 Temperature Stability: 500 °C (932 °F)</p>
<p>General Purpose Non-Ferrous Drilling, Milling, Turning, Tapping, Reaming, Slotting, Trimming, Blanking, Piercing Sawing, Threading, Decorative Hardware</p>	<p>CatArc® ZrN COATING Cathodic Arc Deposition: Zirconium Nitride</p>	<p>Standard Thickness: 1.0 – 2.0 Microns (.00004 – .00008 Inches) Application Range: 1.0 – 5.0 Microns (.00004 – .0002 Inches) Micro-Hardness: 2800 Vickers Coefficient of Friction .50 Temperature Stability: 565 °C (1050 °F)</p>
<p>High Performance Non-Ferrous Cutting Milling Drilling Tapping Turning Aluminum Die Casting</p>	<p>TiB2 COATING Sputtered Deposition: Titanium Diboride</p>	<p>Thickness Range: 2.0 – 5.0 Microns (.00008 – .0002 Inches) Micro-Hardness: 3000 Vickers Temperature Stability: 850 °C (1562 °F) Coefficient of friction .45</p>
<p>High Performance Interrupted cutting Drilling Milling Turning Tapping</p>	<p>TiCN COATING Sputtered Deposition: Titanium Carbonitride</p>	<p>Thickness Range: 2.0 – 5.0 Microns (.00008 – .0002 Inches) Micro-Hardness: 3000 Vickers Temperature Stability: 600 °C (1112 °F) Coefficient of Friction .3 to .45</p>
<p>High Performance / High Temperature High Speed Machining, Dry Machining Gear Cutting, Metal Routing</p>	<p>TiAlN COATING Sputtered Deposition: Titanium Aluminum Nitride</p>	<p>Thickness Range: 2.0 – 5.0 Microns (.00008 – .0002 Inches) Micro-Hardness: 3600 Vickers Temperature Stability: 850 °C (1562 °F) Coefficient of Friction .45</p>
<p>Moderate Severity - Machining Drilling Milling Tapping Turning</p>	<p>TiN COATING Sputtered Deposition: Titanium Nitride</p>	<p>Thickness Range: 2.0 – 5.0 Microns (.00008 – .0002 Inches) Micro-Hardness: 2700 Vickers Temperature Stability: 450 °C (842 °F) Coefficient of Friction .4 - .5</p>

