**COATING SELECTION CHART**

**CCT can provide over 157 coating formulations, including a first class alternative to TiB2**

**Call Us: (937) 278-2060**

<table>
<thead>
<tr>
<th>COATING NAME</th>
<th>COATING COLOR</th>
<th>HARDNESS (HV)</th>
<th>COATING THICKNESS (µ = MICRONS)</th>
<th>COEFFICIENT OF FRICTION (COF)</th>
<th>COATING TEMP (F)</th>
<th>DEFINITION AND COMMON USE</th>
</tr>
</thead>
</table>
| TiN (Titanium Nitride)       | Gold          | 2300-2500     | Industry Standard: 2.2µ - 3.2µ Maximum Range: 1-8µ
                                                    DCT Tolerance: 2.5µ +/- 20%            | 0.4                           | 700             | Great general purpose coating, a proven starter coating for numerous applications (common use: machining ferrous materials, molding, medical industry)
                                                                                                                      NOTE: Can be stripped and reapplied to add life to expensive components.  |
| TiCN (Titanium Carbo Nitride)| Rose          | 2800-3200     | Industry Standard: 2.5µ - 3.5µ Maximum Range: 1-8µ
                                                    DCT Tolerance: 2.8µ +/- 20%            | 0.3                           | 800             | Improved hardness, toughness, wear resistance over TiN with very low COF (common use: stamping, punching, blanking, forming tools, tough machining, injection molding).
                                                                                                                      NOTE: Can be stripped and reapplied to add life to expensive components.  |
| TiAIN (Titanium Aluminum Nitride) | Dark Gray    | 2900-3100     | Industry Standard: 1.8µ - 3.2µ Maximum Range: 1-5µ
                                                    DCT Tolerance: 2.4µ +/- 20%            | 0.35                          | 850             | Forgiving coating with high surface hardness at elevated temp (common use: machining difficult materials, dry or high temp. machining, fast feed rate machining, die cast core pins).
                                                                                                                      NOTE: Can be stripped and reapplied to add life to expensive components.  |
| AITiN (Aluminum Titanium Nitride) | Dark Gray    | 3000-3400     | Industry Standard: 1.8µ - 3.2µ Maximum Range: 1-5µ
                                                    DCT Tolerance: 2.5µ +/- 20%            | 0.35                          | 800             | Versatile coating, low COF, higher breakdown temp. than TiAIN (common use: dry machining, high temp machining, fast feed rate machining, hot forging).  |
| TiAlSiN (Titanium Aluminum Silicon Nitride) | Gray         | 3200-3500     | Industry Standard: 1.8µ - 3.2µ Maximum Range: 1-4µ
                                                    DCT Tolerance: 2.5µ +/- 20%            | 0.35                          | 850             | Extremely hard and tough, higher breakdown temp then TiAIN/ATiN, excellent wear resistance when post treated by DCT (common use: machining cast iron. Any tough application in high temperatures, high temp drilling).
                                                                                                                      NOTE: Can be stripped and reapplied to add life to expensive components.  |
| ZrN (Zirconium Nitride)      | Pale Gold     | 2300-2500     | Industry Standard: 2.2µ - 3.8µ Maximum Range: 1-5µ
                                                    DCT Tolerance: 3.0µ +/- 20%            | 0.35                          | 600             | Exceptional abrasion resistance and lubricity (common use: General purpose machining, medical)  |
| CrN (Chromium Nitride)       | Silver        | 1800-2100     | Industry Standard: 2.2µ - 3.8µ Maximum Range: 1-5µ
                                                    DCT Tolerance: 3.0µ +/- 20%            | 0.45                          | 700             | Great sliding wear resistance, ductile and helps prevent cold welding similar in use to hard chrome plating (common use: machining in a corrosive environment, machining aluminum, copper, metal forming, die cast molds). |
| AlCrN (Aluminum Chromium Nitride) | Blue-Gray     | 3000-3200     | Industry Standard: 1.8µ - 3.2µ Maximum Range: 1-5µ
                                                    DCT Tolerance: 2.5µ +/- 20%            | 0.35                          | 900             | Superb hot hardness with extraordinary wear resistance under extreme mechanical stress (common use: machining such as gear cutting tools, inserts, some punching and die cast) |

**EDGE PREP™**

- DCT offers unique ways to improve your parts performance using our Edge Prep™ tribology lab.
- The right pre-coat surface conditioning and post coat surface enhancement gives you major advantages!
- Cutting edges can be honed and modified using our proprietary systems. DCT can polish parts to mirror finishes.