High Performance Coatings

- PowerT (TiN)
- PowerC (TiCN)
- PowerA (AlTiN)
- PowerZ (ZrN)
- PowerN (nACo)
- PowerNR (nACRo)
- PowerDLC
  (Diamond Like Carbon)
- PowerRD
  (Real Diamond)
Mastercut Premier Coating Options

With Mastercut’s advanced coating technologies, your tool life will increase up to 10 times. Experience improved finishes with increased speed and feed rates by 30-200%. Mastercut offers a full range of coatings, see below. Call for a quote today!

**PowerT (Titanium Nitride, TiN)**
- Color: Gold
- Vickers Hardness: approximately 2,300 Vickers
- General purpose, entry level over uncoated carbide

**PowerC (Titanium Carbon Nitride, TiCN)**
- Color: ranges from slight violet to brown-gray
- Vickers Hardness: approximately 3,000 Vickers
- Used on ferrous, non-ferrous and non-magnetic stainless steel
- Good abrasion resistance, low heat resistance, for applications requiring low RPMs and high thrust

**PowerA (Aluminum Titanium Nitride, AlTiN)**
- Color: Dark Gray
- Vickers Hardness: approximately 3,600 Vickers
- Nickel Alloys, Stainless Steel, Hardened Steels, Tool Steels, Cast Iron
- An excellent broad spectrum grade. May be run in dry or minimum quantity lubrication applications, where heat can be a problem. Also handles light chip loads very well

**PowerZ (Zirconium Nitride, ZrN)**
- Color: dull Gold
- Vickers Hardness: approximately 2,800 Vickers
- Outstanding on aluminum, including high silica aluminum. Can also be used on cast iron, stainless steels, titanium

**PowerN (nACo) nano-composite (nc-AlTiN)/(a-Si³N⁴)**
- Color: varying shades of blue-red; blue-based color dissipates immediately upon use.
- Vickers Hardness: approximately 4,500 Vickers
- Outstanding performance in superalloys, hard material machining, high heat applications and best when used with very rigid setup.

**PowerNR (nACRo) nano-composite (nc-AlCrN/a-Si³N⁴)**
- Color: gray
- Vickers Hardness: 4,000 Vickers
- Outstanding in high heat applications, better resistance to shock and chipping than nACo, for tough, aggressive cutting applications.

**PowerDLC (Diamond Like Carbon)**
- Color: variable gray to black
- Vickers Hardness: approximately 4,000 Vickers
- Non-ferrous metals, high silicone aluminum, copper, plastic, graphite, fiberglass or reinforced plastics
- Can be applied to any carbide substrate

**PowerRD (Real Diamond)**
- Color: variable gray to black
- Vickers Hardness: approximately 8,000 Vickers
- Non-ferrous, metals, aluminum, graphite, green ceramics, and composites
- Requires 6% cobalt carbide for application

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