

## **TiCN** (Titanium Carbonitride)

TiCN has a fine grain dense structure that provides excellent toughness and high hardness. TiCN is harder and tougher than TiN, consequently it exhibits a high resistance to edge chipping.

This coating is a good choice for milling, forming and punching tools that encounter high mechanical stresses. TiCN is also recommended for applications cutting highly abrasive and/or gummy materials such as cast iron, brass and some cast aluminium alloys. LVEB TiCN is extremely smooth.

### **Applications and Benefits**

- High performance applications
- Difficult to machine materials
- Abrasive materials - cast iron and aluminium alloys
- Adhesive materials - copper and copper based alloys
- Higher speeds and feeds possible for enhanced machine productivity compared to TiN
- Wear resistance and toughness superior to TiN

### **Improved performance with**

- Higher speed conventional milling
- Gear cutting tools
- Heavy duty stamping
- Plastic moulds and extrusion tools for plastics containing >30% glass fillers (abrasion resistance)
- Deep drawing tools

<b>Colour</b>	Blue - Grey
<b>Coating Thickness</b>	2 - 4 $\mu\text{m}$
<b>Microhardness</b>	3000 HV
<b>Thermal Stability</b>	up to 400°C
<b>Coeff. Friction vs Steel</b>	0.4

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**SURFACE  
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Titanium Carbonitride