

## 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

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

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Surface Technology Coatings is a division of Sutton Tools

**SURFACE  
TECHNOLOGY  
COATINGS**

Innovation Through Technology

Titanium Carbonitride

# innovation through technology



**By heavily investing in R&D, Surface Technology Coatings is combining the latest technology and Australian ingenuity, to provide world class capabilities for your products. Together we will support Australian manufacturing at a global level.**

Surface Technology Coatings and its parent company Sutton Tools Pty Ltd are a key financial partner in the Defence Materials Technology Centre (DMTC Ltd.), based in Victoria. DMTC Ltd. represents a major partnership between Commonwealth and State Governments, the research sector and private industry, struck to develop and deliver advanced materials and manufacturing technology through industry led research programs that provide enhanced capability to Australian Defence activities. DMTC has installed the Innova Coating System at Surface Technology Coatings in order to provide a unique and worlds-best-practice underpinning of activities to achieve the Centre's vision over the next seven years, based on Surface Technology Coatings' proven track record of market leading products and processes.

## Supporting Australian Manufacturing Together

