

## CrN (Chromium Nitride)

CrN was developed to solve wear problems in special application areas where titanium based coatings were not successful.

CrN resists adhesive wear, corrosion and oxidation. It is recommended for the machining of aluminium and copper, high temperature die casting applications, hot forging of brass and tooling for PVC moulding and extrusion. It is harder than conventional chrome plating and the PVD coating process used to apply CrN has no negative environmental side effects. LVEB CrN is extremely smooth.

### Applications and Benefits

- Specialised applications
- Cutting and forming of copper, nickel, and monel metal
- Enhanced thermal stability and oxidation resistance
- Excellent corrosion resistance
- Low internal stress of coating results in excellent adhesion under high loads

### Improved performance with

- Die casting of aluminium & zinc alloys
- Replacement for hard chrome plating
- Copper machining
- PVC plastic moulding and extrusion tools

Colour	Silver - Grey
Coating Thickness	3 - 5 $\mu\text{m}$
Microhardness	1750 HV
Thermal Stability	up to 700°C
Coeff. Friction vs Steel	0.5

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Surface Technology Coatings is a division of Sutton Tools

**SURFACE  
TECHNOLOGY  
COATINGS**

Innovation Through Technology

Chromium Nitride

# 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

