

## 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  
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Innovation Through Technology

Chromium Nitride