

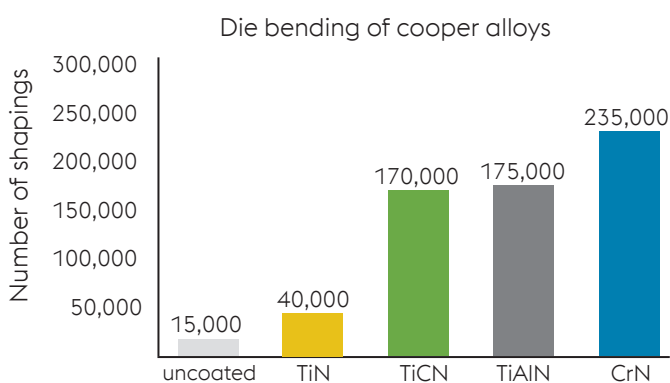
CrN / CrCN

High resistance to abrasion, corrosion and oxidation

The CrN and CrCN coatings offer outstanding properties for tools and components used under extreme conditions. They are characterized by high abrasion resistance, excellent corrosion and oxidation resistance, as well as very good sliding properties under reduced lubrication. Thanks to their high hardness and low brittleness, even thicker layers can be deposited with excellent adhesion.

ADVANTAGES

- » High hardness and adhesive strength
- » Very good chemical resistance
- » Low friction coefficient against steel
- » Low residual stress
- » Thicker layers possible



03/2026 - Specifications are subject to change without notice

COATING PROPERTIES

	CrN	CrCN
Hardness	2,000 ± 200 HV	2,300 ± 200 HV
Coating thickness	1 – 6 µm	2 – 6 µm
Max. operating temperature	600 °C / 1,100 °F	600 °C / 1,100 °F
Coefficient of friction against steel	0.3 – 0.4	0.2 – 0.3
Color	Slate gray	Silver gray
Coating composition	CrN based	CrCN based

APPLICATIONS

Cutting	Milling, turning, grinding and cutting tools for the working of non-ferrous metals, particularly Ti and Cu alloys.
Forming	Drawing, stamping, pressing and forming tools for the working of non-ferrous metals, especially Ti and Cu alloys; aluminium and magnesium die casting.
Plastic molding	Tools which are subject to corrosive and abrasive wear, e.g. through aggressive and hard filling materials.