

# CRN / CRCN

High resistance to abrasion,  
corrosion and oxidation

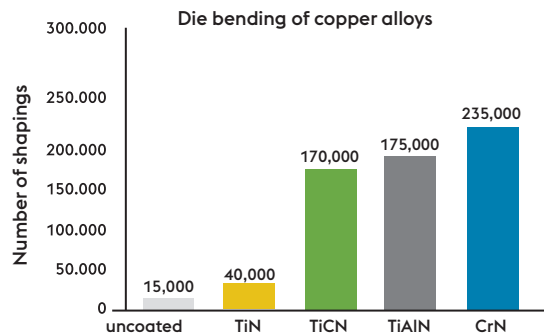
CrN exhibits good sliding properties with minimal lubrication. The high hardness and very low brittleness allow thicker CrN coatings with very good adhesion to the substrate.

## PRODUCT FEATURES

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

## APPLICATIONS

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



## COATING PROPERTIES

	CrN	CrCN
<b>Hardness</b>	2,000 ± 200 HV	2,300 ± 200 HV
<b>Max. application temperature</b>	600 °C / 1,110 °F	600 °C / 1,110 °F
<b>Coefficient of friction against steel</b>	0.3 - 0.4	0.2 - 0.3
<b>Coating thicknesses</b>	1 - 6 µm	2 - 6 µm
<b>Colour</b>	slate grey	silver grey