

# TiCN

## Titanium carbonitride – the complex multilayer structure coating

Our TiCN is a coating with a complex multilayer structure applied using the arc technique. Despite its great hardness, TiCN is not excessively brittle.

This is necessary for numerous applications, such as in interrupted cutting operations when temperatures at the cutting edge are not excessive.

Thanks to the reduced friction and enhanced hardness, the use of TiCN coatings often result in a further significant service life extension compared to TiN coated tools.

### COATING ADVANTAGES

- » Very high hardness
- » High adhesive strength
- » Good wear resistance
- » Improved toughness
- » Low friction coefficient
- » High heat conductivity



### COATING PROPERTIES

<b>Hardness</b>	3,500 ±500 HV
<b>Coating thickness</b>	1–4 µm
<b>Maximum operating temperature</b>	400 °C / 750 °F
<b>Coefficient of friction against steel</b>	0.2
<b>Colour</b>	blue-grey
<b>Coating composition</b>	TiCN-based

### APPLICATIONS

<b>Cutting</b>	Milling, turning, drilling and cutting tools for the working of high and low alloy steels. Highly suitable for HSS milling cutters in cooled steel machining.
<b>Forming</b>	Drawing, stamping, pressing and forming tools for the working of high and low alloy steels. Cold forming of steel and stainless steel.