

# 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.

### PRODUCT FEATURES

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

### APPLICATIONS

<b>Cutting</b>	Milling, turning, drilling and cutting tools for the working of high and low alloy steels. High feed rates and high cutting speeds when temperatures at the cut edges are not excessive Highly suitable for HSS milling cutters in cooled steel machining.
<b>Forming</b>	Suitable for drawing, stamping, pressing and forming tools for the working of high and low alloy steels. Provides excellent performance with various applications in cold forming of steel and stainless steel.

### COATING PROPERTIES

<b>Hardness</b>	3,500 ± 500 HV
<b>Max. application temperature</b>	400 °C / 750 °F
<b>Coefficient of friction against steel</b>	0.2
<b>Coating thicknesses</b>	1 - 4 µm
<b>Colour</b>	blue-grey

