

BETA UNI IRON

BUI | Cost-effective and reliable versatile coating for a wide range of applications

BetaUni Iron is an AlCrN-based coating that was developed for demanding universal machining. Thanks to a simple and proven composition, it delivers universally good results for price-sensitive applications.

Due to its nanostructuring, the coating can be used for a wide range of applications and is suitable for use on a wide variety of tool types such as mould tools, shank tools and roughing tools. This reliable universal coating delivers solid results when machining non-ferrous materials, stainless steel, steel and cast iron. It is even possible to machine hard-to-cut materials such as titanium, superalloy and hardened steel in secondary application areas.

PROPERTIES

Key features of the BetaUni Iron coating include the following:

- Smooth surfaces due to nanostructuring
- Reduction of built-up edges and cold welds
- High wear resistance thanks to high temperature stability and oxidation resistance

BETAUNI IRON AT A GLANCE

Structure	Nanostructured
Composition	Aluminium chromium nitride
Layer thickness	2-3 µm
Layer hardness	approx. 3200 HV
Adhesion factor	Friction coefficient: approx. 0.5 (dry on steel)
Max. operating temperature	approx. 1000 °C
Cooling	Dry and wet processing
Main application	Steel and cast iron, stainless steel, non-ferrous materials
Secondary application (limited suitability)	Titanium, superalloy and hardened steel