

SUPRAL

TiAlCN multilayer coating – The high-performance TiAlN-based coating

Developed for metal cutting tasks (milling, drilling, turning etc.) under demanding operating conditions, where other coatings reach thermal and mechanical limits. However, SUPRAL also displays excellent properties when stamping steel sheets, for example.

Wherever greater coating thicknesses, low friction coefficients and high oxidation resistance with high hot hardness are demanded, the advantages of the SUPRAL are demonstrated.

APPLICATIONS

Cutting	Drilling of steel up to 45 HRC Hard metal, cermet and HSS tools Cast iron machining High-speed processes Semi-dry (MMS) or dry machining
Punching	Steel sheets

COATING PROPERTIES

Hardness	3,500 ±500 HV
Max. application temperature	800 °C / 1,470 °F
Coefficient of friction against steel	<0.05
Coating thicknesses	2 – 5 µm
Colour	Black

PRODUCT FEATURES

- » High oxidation resistance
- » Chemical resistance
- » Low thermal conductivity coefficient
- » Low friction coefficient
- » Higher cutting speeds
- » Longer service life
- » Improved surface quality
- » Dry machining
- » Reduction of cooling lubricant
- » High hot hardness

