

EXXTRAL®

The AlTiN-based coating for high-performance cutting

A hard coating specially developed for hard, dry and high-speed machining.

APPLICATIONS

Cutting	Developed for metal cutting tasks (milling, drilling, turning, etc.) under demanding operating conditions, where other coatings reach their thermal and mechanical limits.
Forming	Also in other areas of application, such as forming technology for example, substantial increases in durability can be achieved for numerous applications as compared to conventional coatings such as TiN and TiCN.

COATING PROPERTIES

Hardness	3,300 ± 300 HV
Max. application temperature	800 °C / 1,470 °F
Coefficient of friction against steel	0.7
Coating thicknesses	2 - 5 µm
Colour	anthracite

PRODUCT FEATURES

- » Higher cutting speeds
- » Longer service life
- » Improved surface quality
- » Dry machining
- » No cooling lubricant required
- » High resistance towards oxidation (800°C)
- » High hot hardness
- » Chemical resistance
- » Low thermal conductivity coefficient

USAGE DATA / TOOL DATA

Cutting data	V _c (m/min)	70
	f _z [mm]	0.070
	a _p [mm]	10.0
	l ₂ [mm]	22
	z	6
	a _e [mm]	0.30 (finishing)
	D[mm]	10.0
Machine settings	Effective path [% down-milling / % up-milling]	100% down-milling
	n _c [min]	2,228
	V _f [mm/min]	936

MATERIAL

Material	1.2379
Size (L x D x H) [mm]	approx. 600x190x90
Target hardness/Rm [HRC /N/mm ²]	60 ⁺³
Actual hardness/Rm [HRC /N/mm ²]	62
Pre-machining	Descaling
Cooling emulsion	dry, light compressed air