

# Coating datasheet

# MX



INFINITE POSSIBILITIES.®

**QUICKGRIND**®  
carbide tooling



## The coating for moderate cutting speeds

MX AlTiN is designed to handle high levels of shear stress and impact fatigue. It can cope with cutting temperatures of up to 850°C.

Crystallite size and internal stress levels are controlled by a selected PVD Arc deposition process.

MX's optimum cutting performance is ensured by its unique composition modulation and stress gradient formula.

## Predictable performance for a wide range of materials

MX can be used on mild steels to tool steels with up to 50 HRC. Cutting speeds range from 40 to 250 M/min depending on conditions and work piece material. The coating can be applied to virtually any of our soild carbide tools and will be offered where applicable.

All cutting data shown is subject to application and machining parameters. Please contact our Technical Support team for advice.

Technical data	
Coating material	AlTiN
Coating thickness	2-4µm
Deposition process	PVD Arc
Hardness HV 0.05	3300
Oxidation temperature	850°C
Coefficient of friction	<0.6
Process temperature	450-500°C
Colour	Blue/black

Cutting speed M/min	40	60	80	100	120	140	160	180	200	220	250	300
Steels up to 700 N/mm <sup>2</sup>												
Steels 800-1000 N/mm <sup>2</sup>												
Steels >1400 N/mm <sup>2</sup>												
Tool steels >45-55 Hrc												
Tool steels >55-60 Hrc												
Cast iron												
Martensitic stainless steels												
Austenitic stainless steels												
Titanium up to 900 N/mm <sup>2</sup>												
Titanium alloys >900 N/mm <sup>2</sup>												
Nickel alloys up to 900 N/mm <sup>2</sup>												
Nickel alloys >1200 N/mm <sup>2</sup>												