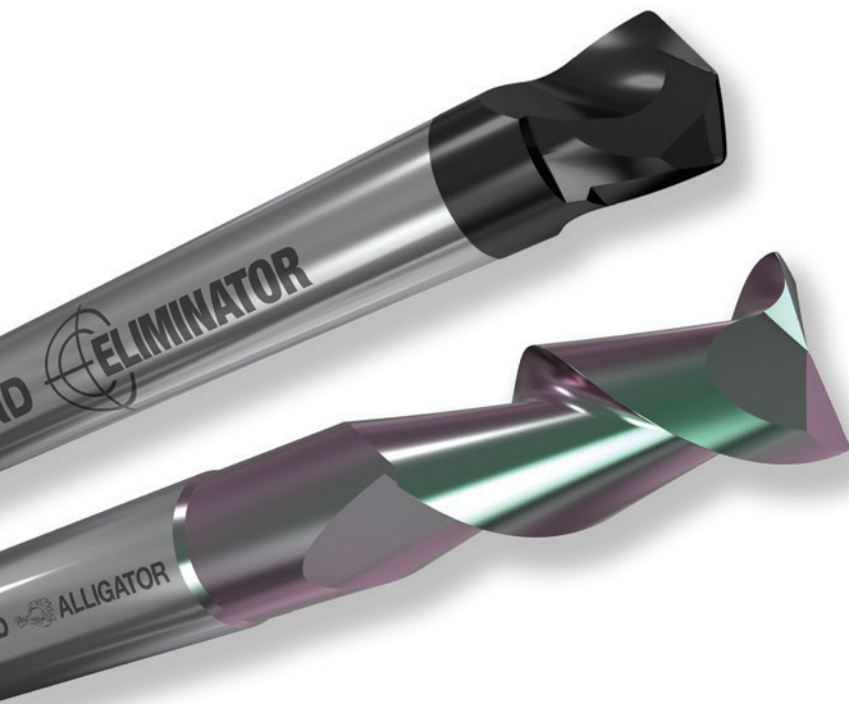


Coating data sheet

TXPlus and TXPlus-R



INFINITE POSSIBILITIES.®

QUICKGRIND®
carbide tooling

TXPlus and TXPlus-R

Coating data sheet

A smooth ta-C coating

Our TXPlus coatings have been developed for the machining of non-ferrous metals, composite structures and plastic materials. With an sp³ content of 60%-70% they reach a hardness of over 5000HV.

These thin, smooth and extremely hard coatings are designed to maintain maximum cutting edge sharpness when machining abrasive materials such as graphite, composite materials with glass or carbon fibre, glass-reinforced PCB materials and high Si content aluminium alloys.

TXPlus also excels in cutting soft noble metals like gold, silver and copper as well as lead-containing and lead-free bronzes and brass alloys. Its variable thickness, very low coefficient of friction and anti-stick properties make it excellent for machining a wide range of plastics and sticky materials where it helps to avoid the build-up of material on the sharp cutting edge.

The alternative to CVD DLC coatings

TXPlus supersedes conventional DLC coatings and is available on almost all of our solid carbide cutting tools.

Combined with our special grinding knowledge and techniques TXPlus has proven to be a very economical solution for machining difficult materials, reducing the need for expensive PCD inserts and diamond-coated tools.

TXPlus-coated tools are also suitable for remanufacture and recoating thereby giving you even greater savings.

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

Technical data

Coating material	ta-C*
Coating thickness	<0.5-1µm
Deposition process	PVD Arc
Hardness HV 0.02	>5000
Oxidation temperature	500°C
Coefficient of friction	<0.1
Process temperature	Below 300°C
Adhesion	Very good, typically class 1
Colours	TXPlus: dark grey/black TXPlus-R: rainbow

*Tetrahedral amorphous carbon
(also known as diamond-like carbon)

Name	Colour	Thickness	Recommended applications
TXPlus (dark grey/black)		<0.6-1µm	Non-ferrous/metal machining AlSi and auto parts, injection moulds & dies
TXPlus-R (rainbow)		<0.5µm	Soft non-ferrous/metal machining (Al, Mg, plastic, rubber, wood laminates)