## **CARBIDE INFORMATION**

## **GRADE COMPARISON**

General purpose-for cast iron and non-ferrous materials.
For cast iron and general purpose

For heavy roughing to semi finishing of all steels. for all steel and general purpose

Designed for heavy roughing to semi finishing of steels.

**TIN Coated**For turning and milling carbon and alloy steels, tool steel and stainless steel, provides longer life than uncoated grades, for high heat & wear resistance on alloys, stainless steel & ductile iron

**C-6** 

**XAB599** 

**XAB649** 

**XAB698** 

**XAB699** 

**XAB748** 

**XAB749** 

**XAB848** 

CVD all round coated cemented carbide. Optimized for medium rough steel milling, but also a good solution for nodular cast iron.

Is a secure all round CVD coated grade for high productive P30 applications, it is tough enough for the most difficult steel machining. Use in dry and wet machining, and interruptions. A grade you can rely on when the going gets tough.

Possesses an excellent thermal and chemical stability with a optimized combination of high performance Nano coating and a highly tough substrate of ultra fine grains aimed at materials hard to machine, such as stainless steel, heat resistant alloys, fitanium alloys, high temperature alloys, etc. It is especially suitable for the finish and semi-finish.

CVD all round coated cemented carbide. Optimized for steel milling, but also a good solution for nodular cast iron. This grade provides good economy in medium to long series production.

Comprising of thick TiCN and Al2O3 coating has high anti-plastic yield and cutting edge strength and is preferred universal grade from steel finishing to roughing. It behaves steady in the wicked cutting condition and can realizes environmental dry-cutting. The cutting speed can increase more than 25% at the same cutting condition and the life will be improved more than 30% at the same cutting speed.

The cutting edge has special strength and toughness, in an optimal combination with MT-TiCN, thick layer AI2O3TiN coating. It is a suitable grade for a wide application. It is good for the finishing, semi-finishing and light roughing of steel, cast steel, stainless steel and cast iron.

Comprised of thick TiCN and Al2O3 coatings makes it suitable for finishing and semi-finishing at high speed. It upgrades abrasive resistance greatly on the premise of increasing toughness. The cutting speed can increase more than 25% and the life will be improved more than 30% at the same cutting speed.

**XAB849** 

Substrate with excellent wear-resistance, in combination with MT-IICN, thick layer Al2O3TIN coating. It is an ideal grade for the finishing steel, cast steel and stainless steel under high speed and dry machining.

**XAC849** 

CVD all round coated cemented carbide. Optimized for steel milling, but also a good solution for nodular cast iron. This grade provides good economy in medium to long series production.

**XAC898** 

CVD coated grade, which is the combination of hard substrate and coating(thick Al<sub>2</sub>O<sub>3</sub> + thick TiCN), shows excellent wear resistance and impact resistance when machining nodular cast iron at high speed.

**XAF795** 

Unique grade material with near perfect wear resistance and high temperature resistance. The nc-TiAIN coating, ultrafine grain substrate, and unique surface treatment make this grade suitable for high precision cutting of "difficult to machine" materials, such as stainless steel, etc..

**XAF798** 

A combination of 2-4 um nc-TiAIN coating and ultrafine grain carbide substrate with high strength and toughness. Suitable for light to medium milling, and boring of all kinds of materials. Recommended for finish and semi-finish turning of stainless steel and roughing turning of high-temperature alloys.of steel from finishing to roughing. Under the same cutting conditions, the cutting speed can be increased by more than 25%, while the tool life can be 30% longer under the same cutting speed.

**XAF799** 

PVD TiN coated carbide grade with good toughness and wear resistance. It is good for threading and drilling (both peripheral and central inserts) low carbon of steel, stainless steel heat resistance steel and cast irons.

XAL649

Substrate with good toughness and strength, in combination with Ti<sub>1</sub>(CN), thin layer Al2O3, TiN coating. It is a premium grade for semi-finishing to light roughing milling of stinless steel at continuous and intermittent milling conditions.

**XAL749** 

A very all around CVD coated cemented carbide grade optimized for medium machining to roughing of stainless steel in both continuous and interrupted cuts. The grade has an excellent resistance to both thermal and mechanical shock.

XC899

With fine size grain. Good for fine and semi-finishing machining of cast iron and nonferrous metal. Particularly for machining of Aluminum.

TiCN based cermet, with fine resistant thermoplastic transmutation and resistant built-up. It is suitable for semi-finishing and finishing of steel, stainless steel and cast iron.

XMF849