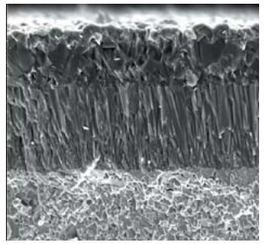
CVD Coating Cemented Carbide



- Reducing friction and abrasion identification by golden TiN layer.
- The best thermal barrier performance by the Al_2O_3 layer with special structure, allowing the plastic deformation resistance of insert substrate when high-speed dry cutting.
- TiCN layer has the performance of anti-abrasive wear which makes insert flank face have the strongest anti-wear performance.
- Enhanced impact resistance and wear resistance of the cutting edge by using gradient sintering technology to upgrade the damage resistance of the cutting edge.
- Enhanced red hardness of the insert substrate and upgraded high temp. resistance by carbide powder of special crystalized structure improves and the high temperature resistance.

JT4015

High wear-resistant substrate coated with multiple TiCN, thick Al_2O_3 and TiN coating. Suitable for finishing of steel, cast steel and stainless steel workpiece under high speed cutting condition.

JT4025

The substrate with cutting edge of special strength and toughness coated with multiple TiCN, thick Al_2O_3 and TiN coating. For general use on steel and suitable for the finishing and semi-finishing of steel, cast steel and stainless steel.

JT4035

High strength and anti-plastic-deformation substrate coated with multiple TiCN, thick Al_2O_3 and TiN coating characterized with high toughness. Suitable for light roughing and roughing of steel, cast steel and stainless steel.

JT4330

The substrate of high hardness. Suitable for medium and high speed and low alloy steel and unalloyed steel under light and heavy load milling condition. Also suitable for milling under poor condition.

JT4340

High wear-resistant substrate of high toughness coated. For general use of common grade for coating cemented carbide. Suitable for medium and low speed milling of steel, cast iron and hardened steel.

JT3105

The coating substrate of high hardness characterized with high temperature resistance and anti-plastic-deformation. Suitable for finishing and semi-finishing of ductile cast iron, forged cast iron of high strength and gray cast iron.

JT3115

High wear-resistant substrate coated with multiple TiCN and thick Al_2O_3 coating. The first choice for ductile cast iron and gray cast iron and high cutting speed allowed.

JT3125

High wear-resistant substrate of medium toughness coated with multiple TiCN and thick Al_2O_3 coating. The first choice for roughing of ductile cast iron and gray cast iron with high metal removal rate.

JT4115

High wear-resistant substrate coated with multiple TiCN and thick Al_2O_3 coating. Suitable for finishing of steel, cast steel and stainless steel under the high-speed cutting condition.

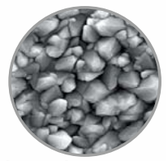
JT4125

The substrate with cutting edge of special strength and toughness coated with multiple TiCN and ultra-fine Al_2O_3 coating. For general use on steel and suitable for the finishing and semi-finishing of steel, cast steel and stainless steel.

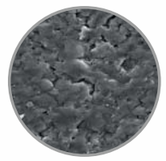
JT4135

High strength and anti-plastic-deformation substrate coated with multiple TiCN, and ultra-fine Al_2O_3 coating characterized with high toughness. Suitable for light roughing and roughing of steel, cast steel and stainless steel.

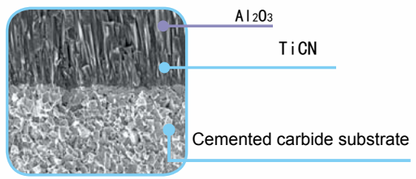
- Enhanced surface cleanness by special surface technology reducing the cutting resistance force and the adhesion of workpiece and improving the stability of insert.
- Enhanced wear resistance and anti-chipping performance by fiber-shaped TiCN and fine Al_2O_3 coating
- Stable red hardness and anti-plastic-deformation under high temp. by the substrate of high hardness coated with thick Al_2O_3. Enhanced wear resistance when processing of cast iron under high speed and high feed rate condition.



Before surface treatment



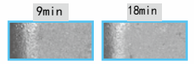
After surface treatment



Comparison of insert abrasion test

Workpiece material : 42CrMo Type of insert : CNMG120408-GS
Cutting parameter : Vc=390m/min a_p=1mm fn=0.2mm/r

Grade of company		JT4115	
9min	18min	9min	18min



JT4215

High wear-resistant substrate coated with multiple TiCN, ultra-fine Al_2O_3 and TiN coating. Suitable for finishing of steel, cast steel and stainless steel workpiece under high speed cutting condition.

JT3215

High wear-resistant substrate coated with multiple TiCN, ultra-fine Al_2O_3 and TiN coating. The first choice for ductile cast iron and gray cast iron and high cutting speed allowed.

JT4225

The substrate with cutting edge of special strength and toughness coated with multiple TiCN, ultra Al2O3 and TiN coating. For general use on steel and suitable for the finishing and semi-finishing of steel, cast steel and stainless steel.

JT3225

High wear-resistant substrate of medium toughness coated with multiple TiCN, ultra-fine Al2O3 and TiN coating. The first choice for roughing of ductile cast iron and gray cast iron with high metal removal rate.

JT4235

High strength and anti-plastic-deformation substrate coated with multiple TiCN, ultra-fine Al2O3 and TiN coating characterized with high toughness. Suitable for light roughing and roughing of steel, cast steel and stainless steel.

JT3235

The coating substrate of high hardness characterized with high temperature resistance and anti-plastic-deformation. Suitable for finishing and semi-finishing of ductile cast iron, forged cast iron of high strength and gray cast iron.

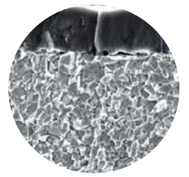
PVD Coating Cemented Carbide

New grade of Nano coating

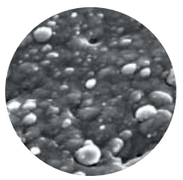
Make hard material easy to process

- Smooth surface, low friction and smooth chip removal with the special coating technique
- Higher toughness and hardness under the adhersion of the coating of unique nanostructure and the substrate.
- More efficient protection for cutting edge based on the excellent thermal and chemical stability.

The TiAlN coating of high performance with nanostructure ensures the high toughness and hardness of the insert. The unique coating technique allowes the smooth surface and ultra-wear resistance and the outstanding thermal and chemical stability provides effective protection for cutting edge



nc-TiAlN Coating(JT1025)



The coating surface of JT1025

JT1025

High toughness substrate of ultra-fine particle coated with 2-4 μm TiAlN PVD coating. Suitable for finishing and semi-finishing of various kinds of workpiece and stainless steel as well as high-temp. alloy.

JT1225

High toughness substrate of ultra-fine particle coated with 2-4 μm nano AlCrN+ AlCrSiN PVD coating. Suitable for various kinds of workpiece in light & medium load milling condition as well as the finishing and semi-finishing of the stainless steel and high-temp. and hardness alloy.

JT1015

High toughness substrate of fine particle coated with 2-4 μm TiAlN PVD coating. Suitable for finishing and semi-finishing of various kinds of workpiece and high-temp. alloy as well as Ti-alloy.

JT1035

High toughness substrate coated with PVD coating. Suitable for roughing and semi-finishing of various kinds of workpiece.