CVD Coated Carbide

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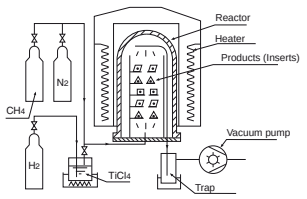
KYOCERA's CVD coated carbide grades are based on ceramic thin film technology and provide stable, efficient machining at high speeds or heavy interrupted applications.

Features

- Applicable from low to high speed machining and from finishing to roughing
- Stable machining is achieved due to the superior toughness and crack resistance
- Machining times are reduced due to good chip control from effective chipbreakers

CVD (Chemical Vapor Deposition)



Features

① Equally deposited on face
② Easy application for multilayer deposition
③ Enabling thick coating

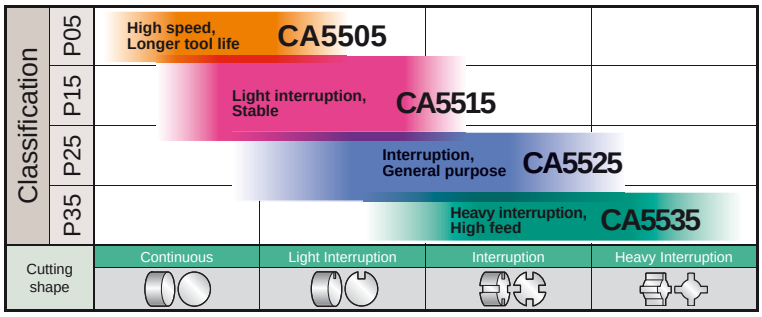
Processing temperature: 900~1100°C

Features of CVD Coated Carbide

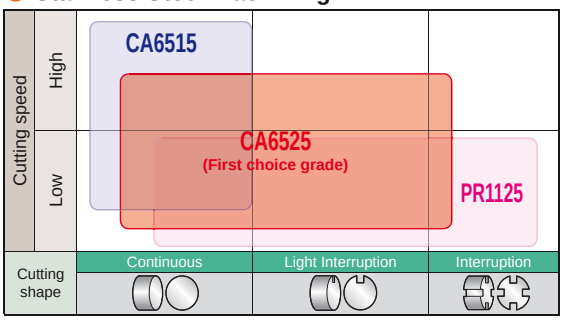
Workpiece Material	Symbol	Color	Coated Composition main Component	Advantages
P Steel	CA5505	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved wear resistance due to hard carbide substrate and micro columnar structure of coated composition • Application: High speed continuous cutting of steel, continuous to light interrupted cutting of cast iron
	CA5515	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved wear resistance and longer tool life due to micro columnar structure of coated composition • Application: High speed cutting of steel, continuous to light interruption
	CA5525	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved toughness and wear resistance due to tougher carbide substrate and micro columnar structure of coated composition • Application: First choice for general cutting of steel, roughing to interruption
	CA5535	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved toughness due to tougher carbide substrate • Application: Roughing to heavy interrupted cutting of steel
	CR9025	Gold	Columnar TiCN+TiN	• Improved toughness and stability due to specialized carbide substrate with plastic deformation resistance • Application: Cut-off, grooving and multi-function machining of steel
M Stainless Steel	CA6515	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Specialized carbide substrate for stainless steel cutting, excellent wear resistance • Application: Continuous to light interrupted cutting of stainless steel
	CA6525	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Specialized carbide substrate for stainless steel cutting, excellent notching resistance and toughness • Application: First choice for general cutting of stainless steel, from finishing to roughing, continuous to interruption
K Cast Iron	CA4010	Gold	Columnar TiCN+Al_2O_3+TiN	• Excellent high temperature stability due to plastic deformation and oxidation wear resistance • Application: Continuous to light interrupted high speed cutting of cast iron
	CA4115	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved wear resistance due to micro columnar structure of coated composition • Application: Nodular cast iron machining, continuous to light interruption
	CA4120	Gold	Micro columnar TiCN+Al_2O_3+TiN	• Improved toughness and wear resistance due to tougher carbide substrate and micro columnar structure of coated composition • Application: Roughing to heavy interrupted cutting of nodular cast iron
	CA4505	Blackish gray	Micro columnar TiCN+Al_2O_3	• Stable, long tool life due to improved bounding force of coated layers and special treatment on the surface of top coated layer • Application: For gray cast iron and nodular cast iron at high speed in continuous to light interrupted machining
	CA4515	Blackish gray	Micro columnar TiCN+Al_2O_3	• Stable, long tool life due to improved bounding force of coated layers and special treatment on the surface of top coated layer • Application: First choice for gray cast iron and nodular cast iron in light to heavy interrupted machining

Application Map

Steel machining



Stainless Steel machining



Cast Iron machining