Selection system of CVD coated grade

Workpiece		Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P	Steel	Continuous cutting	NC3215	295 (170 ~ 420)	P10	
		Interrupted cutting	NC3225	260 (150 ~ 370)	P15	NC3215
					P20	NC3225
			NC3120	260 (120 ~ 370)	P25	NC3120
			NC3030	205 (120 ~ 290)	P30	NC3030
			NC5330	205 (120 ~ 290)	P35	NC5330
M	Stainless steel	Continuous cutting	NC9115 new	240 (220 ~ 260)	M10	NC9115 new
			NC9125 new	210 (190 ~ 230)	M20	NC9125 new
		Interrupted cutting	NC9135 new	180 (160 ~ 200)	M30	NC5330
					M40	NC9135 new
K	Cast iron	Continuous cutting	NC6310 new	380 (300 ~ 500)	K10	NC6310 new
			NC6315	280 (200 ~ 400)	K20	NC6315
		Interrupted cutting	NC5330	190 (110 ~ 270)	K30	NC5330
S	HRSA	Continuous cutting	NC9125 new	40 (20 ~ 60)	S10	NC9125 new
		Interrupted cutting	NC9135 new		S20	NC9135 new

The features of CVD coated grades

CVD Coated grades	ISO	Features
NC3215	P10 ~ P15	• Continuous machining of general steel and forged steel at high speed • Substrate with excellent thermal crack/plastic deformation resistance, coating with improved chipping resistance for continuous machining • MT-TiCN + Al_2O_3 + TiN
NC3225	P20 ~ P25	• Universal grade for general steel and forged steel • 1st recommended grade for general machining with the use of high toughness substrate and coating layer with improved welding/chipping resistance • MT-TiCN + Al_2O_3 + TiN
NC3120	P20 ~ P25	• Medium to roughing for steel • Combining excellent fracture resistance substrate with chipping resistance and heat resistance Al_2O_3 increased stability • MT-TiCN + TiC + Al_2O_3
NC3030	P25 ~ P35	• Medium to low speed machining of steel and interrupted roughing • Harmony between substrate with excellent wear/fracture resistance and Al2O3 film with excellent thermal/chipping resistance • Increased stability in wide ranges of cutting conditions • MT-TiCN + TiC + Al_2O_3 + TiN
NC5330	P30 ~ P35 M25 ~ M35 K15 ~ K25 S15 ~ S25	• Stainless Steel - General cutting for mild steel & forging steel • Excellent cutting performance in hard to cut materials which are vulnerable to built up edge, due to the high tough substrate with improved fracture resistance and the coated layers • MT-TiCN + Al_2O_3 + TiN
NC9115 new	M10 ~ M20	• High speed cutting for ferritic and martensitic stainless steels • MT-TiCN + Al_2O_3 + TiN
NC9125 new	M20 ~ M30	• General cutting of stainless steel and heat resistant alloys • MT-TiCN + Al_2O_3 + TiN
NC9135 new	M30 ~ M40	• Interrupted cutting of stainless steel and heat resistant alloys • MT-TiCN + Al_2O_3 + TiN
NC6310 new	K01 ~ K10	• High speed and continuous cutting of grey cast iron • Increased tool life due to coating layer with high wear resistance • MT-TiCN + Al_2O_3 + TiN
NC6315	K10 ~ K20	• Universal grade for ductile and gray cast Iron • Excellent performance thanks to the alumina (Al_2O_3) coating's improved grip on the tough substrate • MT-TiCN + Al_2O_3