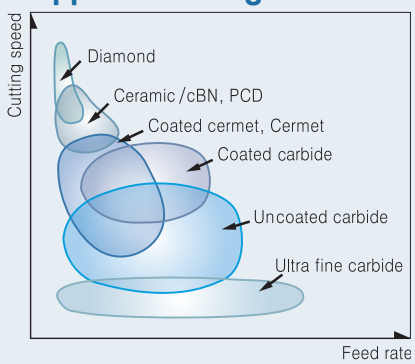
Grades

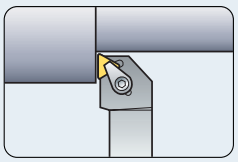
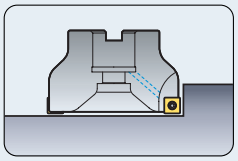
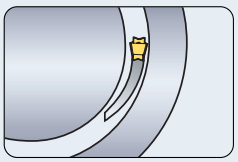
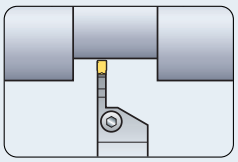
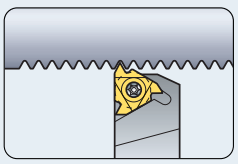
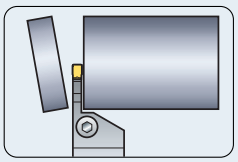
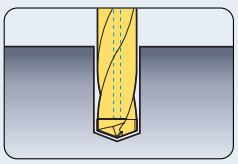
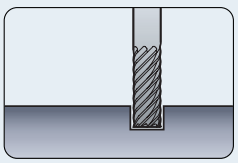
Korloy grades system

Cutting Tool	Uncoated carbide	P	For steel	ST05	ST10	ST15	ST20	ST30A	ST30N	ST30	ST40	ST45	ST46
		M	For Stainless steel	U10	U20	ST30A	U40						
		K	For cast iron	H02	H01	H05	H10	G10					
		N	Non-ferrous metal	H01									
	Coated carbide for turning	P	For steel	NC3010	NC3020	NC3120	NC3030	NC500H					
		M	For Stainless steel	PC8010	NC9020	NC3030	PC9030						
		K	For cast iron	NC305K	NC6110	NC6010	NC315K						
		S	Heat resistance super alloy	PC8010									
	Coated carbide for milling	P	For steel	NCM325	PC230	PC3525	PC3535	NCM335	PC3545				
		M	For Stainless steel	NCM325	PC8520	PC9530	NCM335	PC3545					
		K	For cast iron	PC205K	PC6510	PC215K							
		S	Heat resistance super alloy	PC8520									
	Coated carbide for Drills, Endmills	Coated	For general	PC203F	PC205F	PC210F	PC215F	PC220F	PC220	PC225F			
		Carbide	For general	H01	FG2	FA1	FA2	FS1	FCC				
	Cermet	P	For steel	CN1000	CT10	CN2000	CN20	CN30					
		K	For cast iron	CN1000									
	Coated cermet	P	For steel	CC105	CC115	CC125							
	cBN	P	For steel	KB320	KB330	KB350	KB360						
		K	For cast iron	KB410	KB350	KB370							
		S	Heat resistance super alloy	KB370									
		H	Hardened steel	KB410	KB420	KB425	DNC300	DNC200	KB320	KB330	KB370		
	PCD	N	Non-ferrous metal	DP90	DP150	DP200							
	Diamond Coating	N	For turning	ND1000									
			For milling	ND2000									
	DLC Coating	N	For turning	PD1000									
			For milling	PD2000									
			For endmills	PD3000									
Wear resistance Tool	Ultra fine grain cemented carbide	Z	Ultra fine grain cemented carbide	FA1	FS1	FCC							
	Uncoated carbide	V	Wear parts	D1	D2	D3	G5	G6	K20G				
		I	For corrosion resistance	IN10	IN20	IN40							
Mining Tool	Uncoated carbide	E	For general	GR10	GR20	GR30	GR35	GR40	GR50				

■ Application range

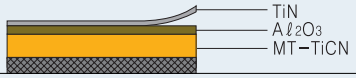
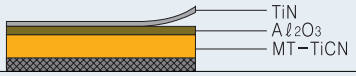
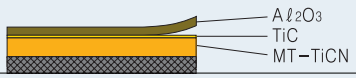
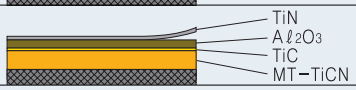
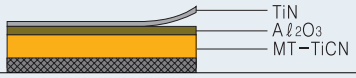
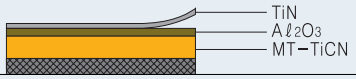
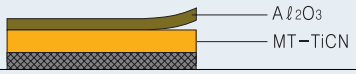
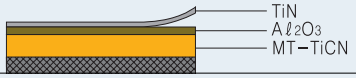
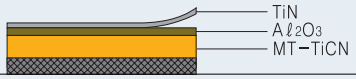
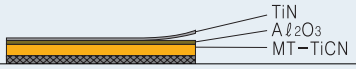
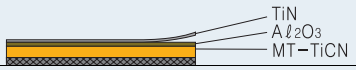
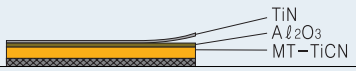


Grade selection system

	P	M	K	N	S	H
Turning 	NC3010 NC3020 NC3120 NC3030 NC500H	NC9020 NC3030 PC9030	KB410 KB350 KB370 NC305K NC6110 NC6010 NC315K	DP90 DP150 DP200 ND1000 H01 PD1000 PC230 PC130	KB370 PC8010	KB410 KB420 KB425 DNC300 DNC200 KB320 KB330 KB370
Milling 	NCM325 NCM335 PC3525 PC3535 PC3545	NCM325 NCM335 PC9530 PC3545	PC6510 PC215K		PC8520	
Face grooving 	NC3120 PC3525 PC230	PC9030	PC215K PC6510			
Grooving 	NC3010 NC3020 NC3120 NC3030 PC3535 PC230	NC9020 NC3030 PC9030	NC305K NC6110 NC6010 PC215K NC315K		PC8010	
Threading 	PC230 PC3030T PC130		PC215K			
Parting off 	NC3010 NC3120 NC3030 PC230 NC500H NCM325	PC9030	PC6510		PC8010	
Drilling 	PC205F PC225F PC3525 PC3535 FA1 ST30A NCM325	PC205F PC9530 FA1	PC205F PC6510 H01 FA1	FG2 H01 FA1	PC8520	
Endmilling 	PC203F PC210F PC220F PC220 PC225F FA1 FA2 FG2 FCC	PC210F	PC220 PC203F FG2 FA1 FA2	H01 FG2 FA2	PC205F PC215F	PC203F PC205F PC215F

The features of korloy grades

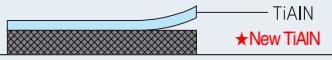
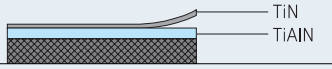
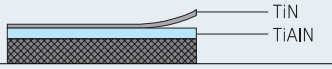
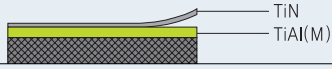
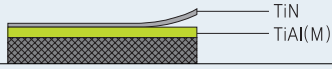
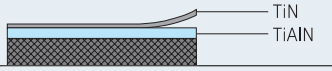
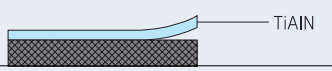
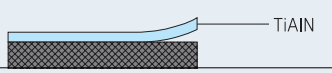
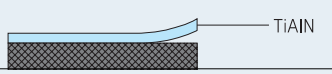
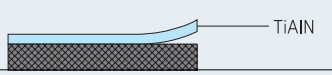
■ CVD coating

Grades	ISO	Coating layer	Features	Application					
				Turning	Grooving	Parting	Threading	Milling	Drilling
NC3010	P05~P15		• For high speed machining of steel. • Optimal for high speed machining of steel due to the combination of high hardness substrate and CVD Aℓ2O3 coating.	○	○	○			
NC3020	P15~P25		• For medium cutting of steel. • Excellent combination of tough substrate and Aℓ2O3 coating having superior chipping resistance provide stable and consistent cutting performance.	○	○				
NC3120	P15~P35		• Medium to roughing for steel. • Combining excellent fracture resistance substrate with chipping resistance and heat resistance Aℓ2O3 increased stability.	○	○				
NC3030	P25~P35 M15~M25		• For medium to roughing, intermittent cutting of steel and stainless steel. • Combination of toughest substrate and Aℓ2O3 coating having superior chipping resistance provide wide coverage.	○	○	○			
NC500H	P25~P35		• For heavy duty cutting of steel. • Combination of substrate having superior plastic deformation resistance and Aℓ2O3 coating having superior chipping resistance provide excellent quality on heavy-duty cutting.	○		○			
NC305K	K01~K10		• For high speed cutting of cast iron. • Combination of hard substrate and thick CVD Aℓ2O3 coating provide excellent wear resistance.	○	○				
NC6110	K05~K15		• General cutting for gray cast iron and ductile cast iron. • Tough substrate and improved adhesion of thick Aℓ2O3 show superior wear resistance.	○	○				
NC6010	K10~K15		• For general, high efficient cutting of cast iron.(gray & ductile) • Combination of tough substrate and thick CVD Aℓ2O3 coating provide wide coverage of cast iron machining.	○	○				
NC315K	K10~K20		• For effective cutting of cast iron at interrupted cutting. • Combination of soft substrate and thick CVD Aℓ2O3 coating provide stable cutting with out breakage.	○	○				
NC9020	M10~M20		• For high speed cutting of stainless steel. • Matching of special substrate having excellent thermal stability and CVD coating having superior chipping resistance provide longer tool life.	○	○				
NCM325	P20~P30 M20~M30		• For high speed milling of steel and stainless steel. • Optimized grade for steel & stainless steel milling by employing proper substrate(optimal hardness & toughness combination) and hard coating.			○		○	○
NCM335	P30~P40 M30~M40		• For interrupted and rough milling of steel and stainless steel. • Toughest substrate with hard coating provide stable cutting even at severe interrupted cutting.					○	

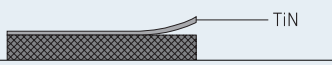
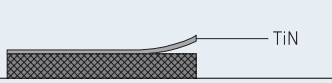
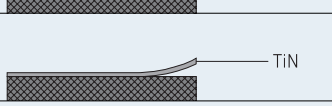
■ Un-coated Carbide

Grades	ISO	Features	Application					
			Turning	Grooving	Parting	Threading	Milling	Drilling
ST05	P05	• WC-TiC-TaC-Co Excellent thermal shock resistance and plastic deformation resistance.	○					
ST10	P10		○			○		
ST15	P15		○					
ST20	P20		○				○	
ST30N	P30		○				○	
ST30	P30		○					
ST30A	P30			○	○		○	
ST40	P40		○				○	
ST46	P45		○					
ST45	P45		○					
U10	M20	• WC-TiC-TaC-Co Comprehensive grades with excellent thermal shock and hardness.	○				○	
U20	M25		○				○	
U40	M35		○				○	
H02	K05	• WC-Co Hard and strong grades.	○					
H01	K10		○	○			○	○
H05	K15		○				○	
H10	K20		○				○	
G10	K20		○	○			○	

■ PVD coating

Grades	ISO	Coating layer	Features	Application					
				Turning	Grooving	Parting	Threading	Milling	Drilling
PC3525	P15~P35		• Superior wear resistance and crater wear resistance to PC3535. • Improved wear resistance and crater wear resistance show excellent milling performance at high speed cutting.		○	○		○	○
PC3535	P20~P35		• For milling & turning of steel • K-Gold coating • Comprehensive grade can cover wide application range due to special substrate that equipped with optimal wear resistance and toughness and PVD TiAlN.					○	○
PC3545	P30~P50		• For medium & roughing of steel • K-Gold coating • Tough exclusive substrate with Nano-TiAlN provide excellent wear resistance and toughness at the same time.	○				○	
PC8010	M01~M10 S01~S20		• For high speed machining of difficult-to-cut material and stainless steel. Hard coating guarantees pro-longed tool life at difficult-to-cut material cutting. • K-Gold coating	○	○	○			
PC8520	S20~S30		• For medium & roughing of difficult-to-cut material and stainless steel. • Tough substrate with hard coating provide stable tool life at interrupted cutting. • K-Gold coating					○	○
PC6510	K01~K15		• High speed cast iron milling grade having superior wear resistance. • K-Gold coating • Available for machining of aluminum as well.		○	○		○	
PC215K	K15~K30		• Optimal grade for milling of cast iron at medium to low speed cutting. • Available for machining of aluminum as well.	○	○		○	○	
PC9030	M20~M35		• For medium to roughing, interrupted turning of stainless steel • Toughest sub-micron substrate with PVD TiAlN guarantee superior property of prevent build-up-edge, thus extended and consistent tool life can be acquired.	○	○	○	○		
PC9530	M20~M35		• For medium to rough milling of stainless steel. • Toughest sub-micron substrate provide excellent cutting performance at high feed machining.					○	○
PC230	P20~P30		• Excellent wear resistance and tough substrate is suitable for milling in high speed cutting and stainless steel	○	○	○			

■ Coated Cermet

Grades	ISO	Coating layer	Features	Application					
				Turning	Grooving	Parting	Threading	Milling	Drilling
CC105	P05		• PVD coated cermet • For high speed light cutting of steel and cast iron. • Optimal for precise boring.	○					
CC115	P15, K15		• PVD coated cermet • For medium to high speed light cutting of steel and cast iron. • Wet and dry machining is available.	○					
CC125	P20		• PVD coated cermet • For medium to high speed light cutting of steel and cast iron. • Wet and dry machining is available.					○	

■ Cermet

Grades	ISO	Features	Application					
			Turning	Grooving	Parting	Threading	Milling	Drilling
CN1000	P10, K10	• Comprehensive grade can cover from finishing to roughing of steel.	○					
CN2000	P20	• Special cermet developed with functionally gradient material technology.	○					
CT10	P10	• Cermet for general machining	○	○	○			
CN20	P20	• Exclusive for steel milling	○	○	○	○	○	
CN30	P30	• Toughest cermet having enough toughness					○	