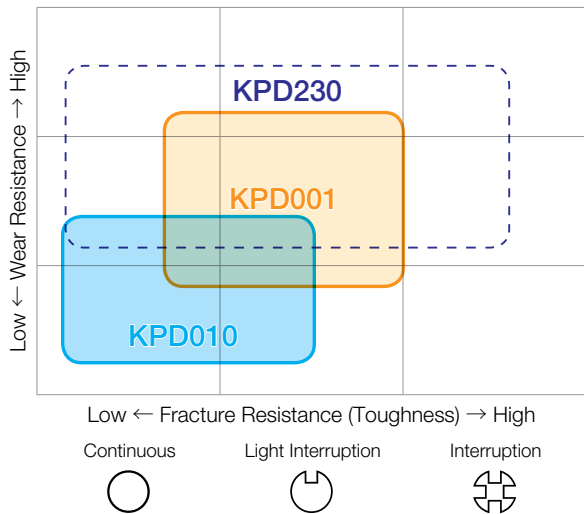


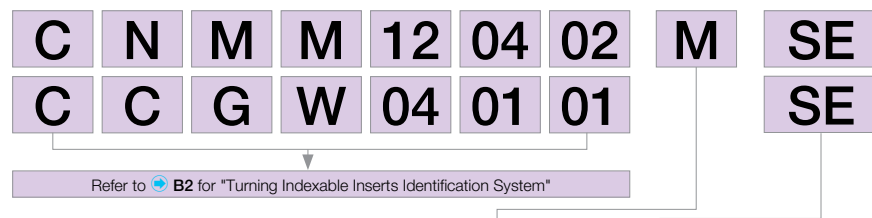
Application Map



About Insert Grades

Grades	Applications	Advantages
KPD001 (Average grain size under 1µm)	<ul style="list-style-type: none"> High speed machining of non-ferrous metals and brass High speed machining of glass fiber and plastics Machining of carbide and ceramics 	<ul style="list-style-type: none"> Smallest micro-grain possible in PCD High edge strength with superior wear resistance, fracture resistance, and edge sharpening performance
KPD010 (Average grain size 10µm)	<ul style="list-style-type: none"> High speed machining of non-ferrous metals and brass High speed machining of glass fiber and plastics Machining of carbide and ceramics 	<ul style="list-style-type: none"> Well balanced wear resistance and flexural strength General Purpose
KPD230 (Mixture of fine grain with average grain size 2-30µm and rough)	<ul style="list-style-type: none"> High speed milling of aluminum alloy and non-ferrous metals such as brass High speed milling of glass fiber and plastics 	<ul style="list-style-type: none"> High density PCD with mixture of both rough and fine grains with excellent abrasive wear and chipping resistance
KPD250 (Average grain size 25µm (Made to order))	<ul style="list-style-type: none"> High speed machining of high silicon aluminium alloy Machining of carbide 	<ul style="list-style-type: none"> Rough grain PCD (Average grain size 25µm) Superior to wear resistance

Turning Insert Identification System



Insert Type	Part Number	Manufacture's Option 1	Manufacture's Option 2	Series Name	Cutting Edge Length	No. of Edges	Regrinding
Negative	CNMM120402M-SE	M (Indicates the tool is for negative inserts/toolholders)	SE	Small Edge	Short (Small Edge)	1	Not Recommended
	CNMM120402M-NE		NE	New Value Edge	Long (85% length compared to no indication's cutting edge)	1	Possible
	CNMM120402M		No Indication	-	Long	1	
Positive	CCGW040101SE	-	SE	Small Edge	Short (Small Edge)	1	Not Recommended
	CCGW040101NE		NE	New Value Edge	Long (85% length compared to no indication's cutting edge)	1	Possible
	CCGW040101		No Indication	-	Long	1	

- Note) 1. No edge preparation symbols for PCD inserts. Most of the PCD inserts' edge preparations are sharp edge.
 2. "M" in manufacturer's option 1 indicates the inserts are applicable to negative toolholders.
 3. Refer to [Page B6](#) for insert color.

About Regrinding

- 1) Regrinding is possible with the inserts with "NE" and no symbol in manufacturer's option 2. Regrinding can not be available on the edge condition.
- 2) Regrinding is not recommended for inserts with "SE" in manufacturer's option 2.

Recommended Cutting Conditions (Turning)

Workpiece Material	Insert Grades		Cutting Conditions				Remarks
	KPD001	KPD010	Cutting Speed (sfm)	D.O.C. (in)		Feed Rate (ipr)	
				Small Edge and Positive Inserts	Negative Inserts		
Aluminum Alloys Zinc Alloys	★	☆	975 - 4925	~0.039	~0.079	0.001 ~ 0.020	Both Dry and Wet Cutting Available
Copper, Brass, Bronze	★	☆	975 - 3275	~0.039	~0.079	0.001 ~ 0.020	
Magnesium Alloys	★	☆	1300 - 3925	~0.039	~0.079	0.001 ~ 0.020	
Carbide	★	☆	25 - 100	~0.012	~0.012	0.001 ~ 0.004	
Titanium Alloys	★	☆	325 - 650	~0.039	~0.079	0.002 ~ 0.008	Wet
Glass Fiber Reinforced Plastics Carbon Fiber	★	☆	325 - 1975	~0.039	~0.079	0.002 ~ 0.020	Dry
Silica Filling Plastic Particle Board	★	☆	1300 - 2625	~0.039	~0.079	0.002 ~ 0.020	