

◇ PCD Grades and applications

Grade	Description	Application
RF05 (Fine)	Average grain-size of 5µm Low metal content High abrasion resistance High toughness	Finishing operations in moderately abrasive materials, high-silicon aluminium, plastics, composites, precious metals, leded alloys and wood.
RM10	General purpose grade Average grain-size of 10 µm Low metal content High abrasion resistance High toughness	Roughing and finishing of very abrasive materials, medium-silicon aluminium alloys, abrasive copper alloys, powder metals, graphites, reinforced epoxies, carbon, rubber, fibreglass, hardwoods and laminates. Good surface finish.
RC30X	Average grain-size of 30 µm Low metal content Extremely high abrasion resistance Extremely high toughness	Mainly used in roughing operations of extremely abrasive material interrupted cuts, rough machining, high-silicon aluminium, powder metals, cemented carbides, graphite, composites, green ceramics, phenolics, bronze and siliconreinforced resins. Extremely wear resistant and with a very good tool life.

◇ CBN Grade and application

Grade	Description	Application
RN90	High CBN content 90% cubic boron nitride	General purpose grade Machining of pearlitic cast iron Roughing and finishing of high temperature alloys, flame spray metals, Rough machining of hardened steel

PCD General Machining Parameters

Material	Grade	Operation	Speed mm/min	Feed mm/rev	DOC mm
Aluminium	RM10	Turning	427	0.64	0.51
	RC30X	Milling	434	2.54	0.76
	RM10	Boring	232	0.10	0.25
	RC30X	Grooving	198	0.13	3.81
Bronze Alloy	RM10	Turning	198	0.08	0.25
		Boring	189	0.05	0.18
Copper Alloy	RM10	Turning	149	0.05	1.27
		Boring	479	0.08	1.52
		Grooving	159	0.13	0.38
Rubber	RM10	Boring	668	0.18	0.64
Fibreglass	RM10	Drilling	125	0.08	0.08
Plastic	RMO5	Turning	425	0.10	0.64
		Facing	747	0.25	0.13
Tungsten Carbide	RC30X	Turning	18	0.10	3.05

CBN General Machining Parameters

Material	Grade	Operation	Speed mm/min	Feed mm/rev	DOC mm
Super alloys	RN90	Turning	189	0.13	2.0
	RN90	Facing	129	0.13	1.0
Hardened Tool Steels	RN90	Turning	93	0.13	2.0
	RN50	Boring	67	0.13	0.5
Hardened Alloy Steel	RN50	Boring	98	0.10	0.5
		Grooving	104	0.13	0.5
		Milling	91	0.20	0.5
		Turning	107	0.23	0.5
Stainless Steels	RN90	Grooving	111	0.06	0.5
	RN90	Facing	107	0.03	0.5
Grey Cast Irons	RN100	Facing	488	0.25	2.0
		Turning	488	0.48	2.0
		Boring	67	0.25	2.0
Ni-Hard	RN90	Turning	101	0.23	1.0
		Facing	67	0.25	2.0
		Boring	67	0.38	2.0