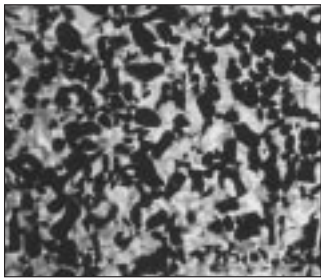


Cermet for high speed finish turning **GP10N**

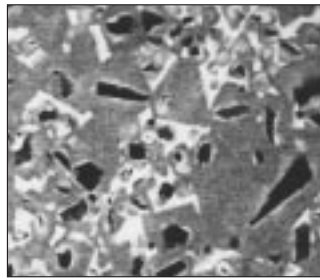
- Emergence of a micro-grain cermet for finishing.
- Compared to conventional cermets, wear resistance and fracture resistance are both improved.
- GP10N displays excellent performance for medium to high speed finishing of steel and cast iron.



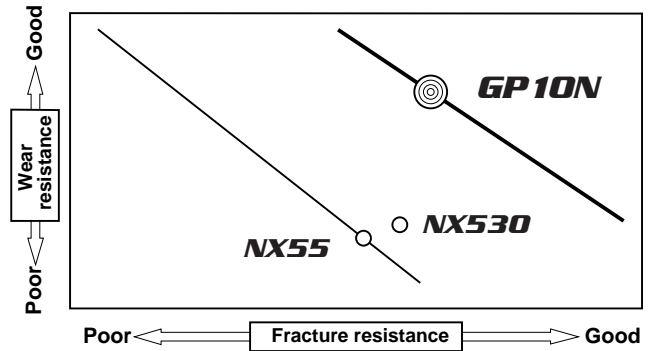
CERMET FOR TURNING *GP10N*



GP10N micro structure

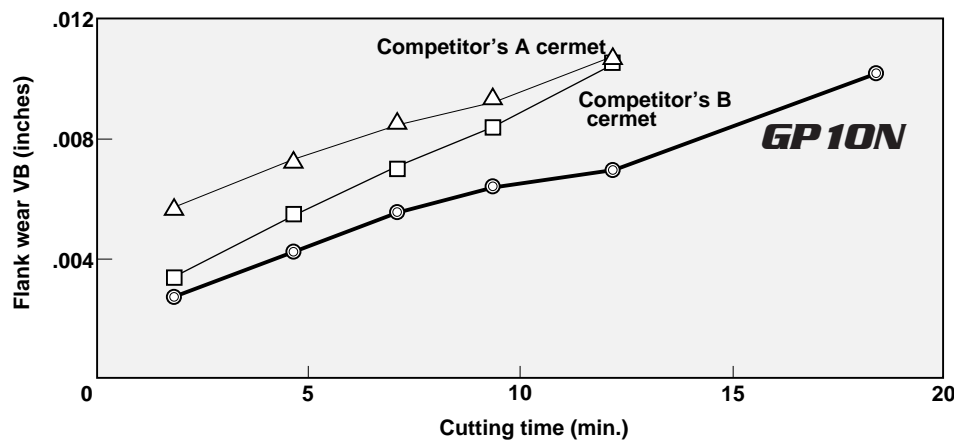


Conventional cermet micro structure



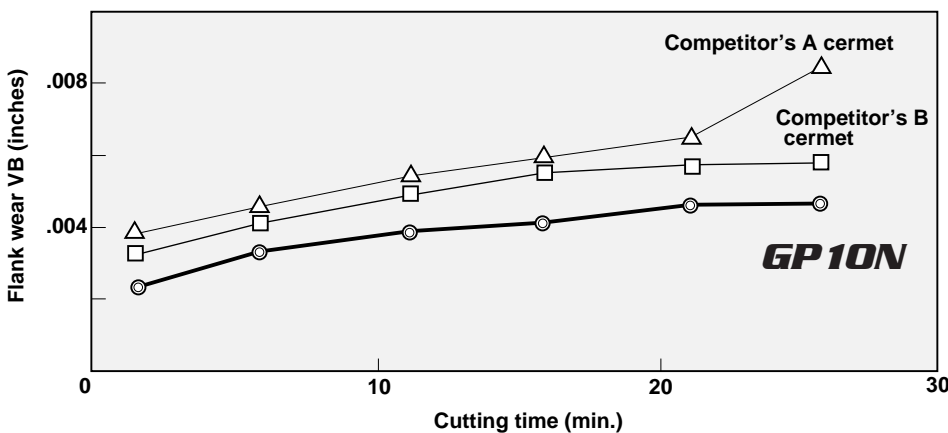
■ CUTTING PERFORMANCE

● High speed finishing of steel



Workpiece : ANSI 4140
 Insert : CNMG432
 Cutting speed : 1150 (SFM)
 Feed : .008 (IPR)
 Depth of cut : .02 (inches)
 Continuous dry cutting

● Continuous cutting of cast iron



Workpiece : ANSI 45B
 Insert : CNMG432
 Cutting speed : 590 (SFM)
 Feed : .012 (IPR)
 Depth of cut : .06 (inches)
 Continuous dry cutting

■ RECOMMENDED CUTTING CONDITIONS

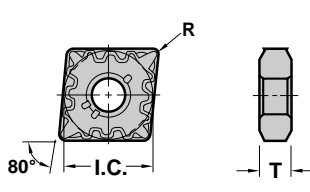
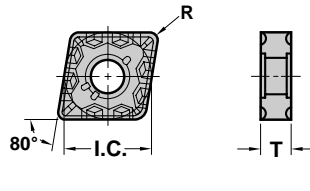
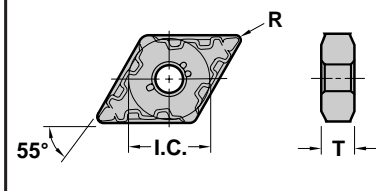
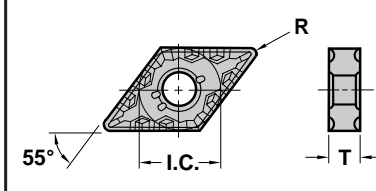
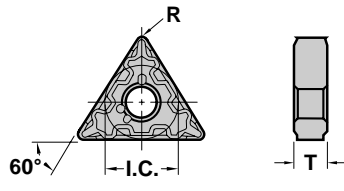
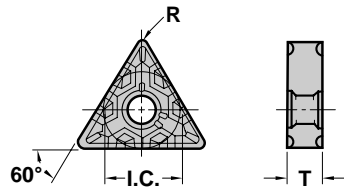
Workpiece	Hardness (HB)	Cutting speed (SFM)	Feed (IPR)
Carbon steel Alloy steel	<180	980 (660~1150)	.008 (.002~.012)
	180~280	820 (490~1150)	.008 (.002~.012)
Grey cast iron	80~280	820 (490~980)	.008 (.002~.012)

■ APPLICATION RANGE

USA		ISO		Steel turning	USA		ISO		Cast iron turning
C8	P01				C4	K01			
C7	P10				C3	K10			
C6	P20				C2	K20			

CERMET FOR TURNING *GP10N*

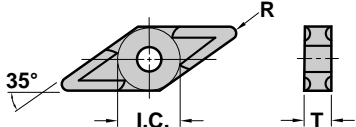
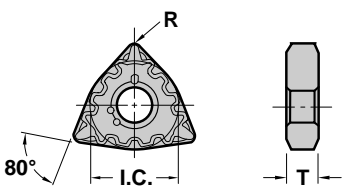
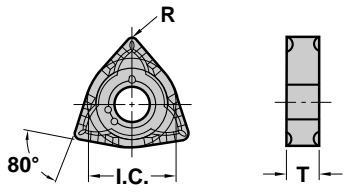
STANDARD INSERTS

Shape	Class	Order Number	Stocked	Dimensions (inch)		
			<i>GP10N</i>	I.C.	T	R
CNMG...FH 	M	CNMG431FH	+	1/2	3/16	1/64
		432FH	+			1/32
CNMG...SA 	M	CNMG431SA	+	1/2	3/16	1/64
		432SA	+			1/32
DNMG...FH 	M	DNMG431FH	+	1/2	3/16	1/64
		432FH	+			1/32
DNMG...SA 	M	DNMG431SA	+	1/2	3/16	1/64
		432SA	+			1/32
TNMG...FH 	M	TNMG331FH	+	3/8	3/16	1/64
		332FH	+			1/32
TNMG...SA 	M	TNMG331SA	+	3/8	3/16	1/64
		332SA	+			1/32

⊕ : Stock, □ : Non Stock

CERMET FOR TURNING *GP10N*

STANDARD INSERTS

Shape	Class	Order Number	Stocked	Dimensions (inch)		
			<i>GP10N</i>	I.C	T	R
VNMG... 	M	VNMG331	+	3/8	3/16	1/64
		332	+			1/32
WNMG...FH 	M	WNMG431FH	+	1/2	3/16	1/64
		432FH	+			1/32
WNMG...SA 	M	WNMG431FH	+	1/2	3/16	1/64
		432SA	+			1/32

⊕ : Stock, □ : Non Stock

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