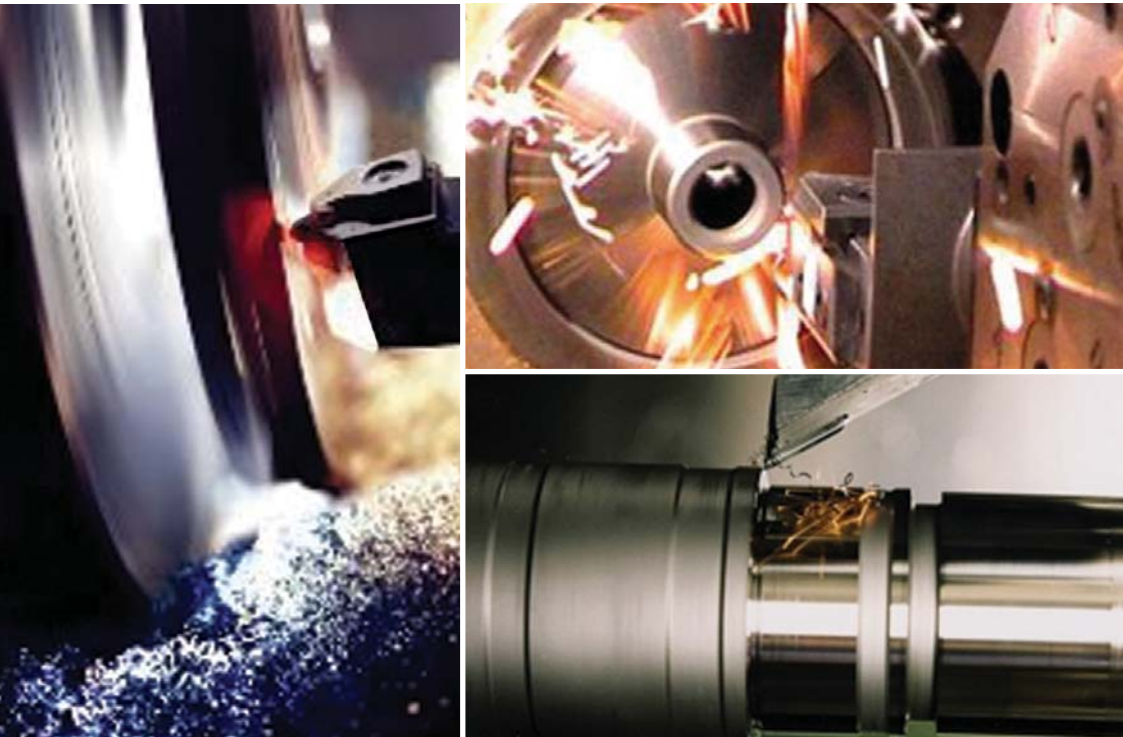


CITCO Diamond & cBN Products



Workpiece fine finishing PCBN inserts



Fives Cinetic, designing today the cutting tools of the future

PCBN Minitip Insert Stock Program

		I.C.	T	ØH	R	L	α	B25	B26	B31
	CNGA431-MAB	.500	.187	.203	.016	.106	-	■	□	□
	CNGA432-MAB	.500	.187	.203	.031	.103	-	■	■	■
	CNGA433-MAB	.500	.187	.203	.047	.100	-	■	■	□
	CNGA431-MWAB	.500	.187	.203	.016	.106	-	■	□	□
	CNGA432-MWAB	.500	.187	.203	.031	.103	-	■	■	■
	CNGA433-MWAB	.500	.187	.203	.047	.100	-	■	□	□
	CNGA432-MWABCD	.500	.187	.203	.031	.103	-	■	□	□
	CNGA433-MWABCD	.500	.187	.203	.047	.100	-	■	□	□
	DNGA431-MAB	.500	.187	.203	.016	.125	-	■	□	■
	DNGA432-MAB	.500	.187	.203	.031	.115	-	■	■	■
	DNGA433-MAB	.500	.187	.203	.047	.100	-	■	□	□
	DNGA432-MABCD	.500	.187	.203	.031	.115	-	■	■	■
	TNGA331-MABC	.375	.187	.150	.016	.110	-	■		
	TNGA332-MABC	.375	.187	.150	.031	.110	-	■	■	□
	TNGA432-MABC	.500	.187	.203	.031	.100	-	■	■	□
	TNGA433-MABC	.500	.187	.203	.047	.095	-	□	■	□
	VNGA331-MAB	.375	.187	.150	.016	.125	-	■	□	□
	VNGA332-MAB	.375	.187	.150	.031	.100	-	■	■	■
	VNGA332-MABCD	.375	.187	.150	.031	.100	-	■	■	■
	SNGA332-MAB	.375	.187	.150	.031	.100	-	□	□	■
	SNGA432-MAB	.500	.187	.203	.031	.100	-	□	□	■
	SNGA433-MAB	.500	.187	.203	.047	.100	-	□	□	■

AB=2 corners ABC=3 corners ABCD=4 corners

See Page 4 for CITCO Grades Information.

PCBN Minitip Insert Stock Program

		I.C.	T	ØH	R	L	α	B25	B26	B31
	WNGA332-MABC	.375	.187	.150	.031	.100	-	■	■	□
	WNGA333-MABC	.375	.187	.150	.047	.100	-	□	■	□
	CCGW21.51-MAB	.250	.094	.110	.016	.100	7°	□	■	□
	CCGW21.52-MAB	.250	.094	.110	.031	.100	7°	□	□	□
	CCGW32.51-MAB	.375	.156	.173	.016	.100	7°	□	■	□
	CCGW32.52-MAB	.375	.156	.173	.031	.100	7°	□	■	□
	DCGW21.51-MAB	.250	.094	.110	.016	.110	7°	□	■	□
	DCGW21.52-MAB	.250	.094	.110	.031	.100	7°	□	□	□
	DCGW32.51-MAB	.375	.156	.173	.016	.110	7°	□	■	□
	DCGW32.52-MAB	.375	.156	.173	.031	.100	7°	□	■	□
	TCGW2151-MABC	.250	.094	.114	.016	.110	7°	□	■	□
	TCGW3252-MABC	.375	.156	.177	.031	.100	7°	□	■	□
	VBGW221-MAB	.250	.125	.110	.016	.100	5°	□	■	□
	VBGW331-MAB	.375	.187	.177	.016	.100	5°	□	■	□
	TPG221MABC	.250	.125	-	.016	.110	11°	□	■	□
	TPG322MABC	.375	.125	-	.031	.100	11°	□	■	□

Stock Standard ■

Non-Stock Standard □

CITCO Multi-tipped PCBN Mini-tip inserts for fine finishing applications are the result of over 70 years of experience in developing and manufacturing innovative superabrasive products for industry worldwide. We have the right grade and edge prep to satisfy your most challenging jobs. Contact a CITCO Cutting Tools application specialist for assistance in selecting the best insert for your part and machine. Call toll-free 1-800-242-7366 today.

CITCO Borpax® PCBN Grade B25 –

Recommended for high precision continuous hard turning

Excellent for continuous cutting of a wide range of hardened steels and powdered metallurgy components from 45-65 HRC. Provides excellent tool life at cutting speeds up to 250 m/min. (800 ft./min.). The extremely uniform microstructure and consistency of the cBN material distributed throughout the ceramic binder facilitates high quality cutting edges. Precision-ground edges (T-lands and hones) are capable of machining to sub-micron finishes. B25 is an extremely wear resistant material that offers a significant increase in tool life while retaining the integrity and hardness of the cutting edge.

CITCO Borpax® PCBN Grade B26 –

Recommended for high precision continuous and mild interrupted hard turning

Suitable for cutting light to moderate interrupted hardened steels up to 65 HRC. Has shown improved performance at cutting speeds up to 200 m/min. (650 ft./min.). This is a low content, sub-micron grain cBN material with a titanium nitride (TiN) binder. B26 is a stronger, tougher material with improved chip resistance. This provides the highest quality cutting edges for the most demanding precision hard machining applications. High hot hardness and wear resistance deliver longer tool life while maintaining tight work piece dimensional tolerances.

CITCO Borpax® PCBN Grade B31 –

Recommended for excellent toughness behavior in heavily interrupted operations

Optimum grade for toughness, demanding applications on hardened steels, tool steels, hard cast irons, gray cast irons, and powdered metallurgical components. High abrasion resistance for machining outlet valve seat alloys and alloyed work piece materials with high carbide content. Reliable and consistent performance on interrupted hard turning, milling and the most demanding applications. The material comprises over 90% cBN of 2-4 microns in size with a Cobalt-Nickel based binder. The combination of strength and toughness provides fine, smooth cutting edges which may be used up-sharp or honed. Positive geometry tools have minimal loss in edge strength. Sometimes desirable for fine precision finishing or where it is critical to minimize tool pressure.



CITCO Diamond & cBN Products Cinetic Landis Corp.

357 Washington Street
Chardon, OH 44024 USA
Tel: 440-285-9181
Fax: 440-285-7975
E-mail: citcoinfo@fivesgroup.com
www.fivesgroup.com/tools