

IONBOND INNOVATIVE PERFORMANCE COATINGS (IPC)										
IonBond Coating	Process	Coating Structure	Applications	Standard thickness (microns)	Hardness (HV 0.05)	Oxidation Temp (°C / °F)	Coefficient of Friction vs Dry Steel	Color		
IonBond Innovative Performance Coatings for Cutting Tools	DRILLING	Maximizer Top	PVD	AlTiN	Deep drilling, finishing applications	3	3300	900 / 1650	0.3	Gray Purple
		PerformDrill	PVD	TiSi based	High performance drilling applications in difficult to machine materials	2 ± 0.6	3600	1200 / 2190	0.3	Bronze
		TriboCut	PVD	Me-DLC	Machining aluminum with under 12% Si content	2 to 4	2600	350 / 660	0.02	Black
		TetraBond Diamond	PVD	T:aC	Machining graphite, aluminum (>12% Si), copper, brass, precious metals	1 ± 0.2	8000	700 / 1290	<0.1	Black
	MILLING	HardCut	PVD	TiSi based	High speed and hard machining of difficult to machine materials, especially for carbide tools	3.5 ± 1	3600	1200 / 2190	0.4	Bronze
		Dominizer	PVD	AlTiCrN based	Machining steels with hardness <40 HRC	2 to 4	3000	900 / 1650	0.3	Black Violet
		MaximizerNano	PVD	AlTiN based	Performance machining applications	2 to 3	3400	1000 / 1830	0.3	Gray Purple
		TriboCut	PVD	Me-DLC	Machining aluminum with under 12% Si content	2 to 4	2600	350 / 660	0.02	Black
	GEAR CUTTING	TetraBond Diamond	PVD	T:aC	Machining graphite, aluminum (12% Si), copper, brass, precious metals	1 ± 0.2	8000	700 / 1290	<0.1	Black
		MaximizerNano	PVD	AlTiN based	Performance machining applications	2 to 3	3400	1000 / 1830	0.3	Gray Purple
		GearCut Ultra	PVD	AlTiCrN based	Performance gear cutting	3 to 5	3000	900 / 1650	0.3	Black Violet
	INSERTS	TopGear	PVD	TiSi based	High speed and dry gear cutting, specifically for carbide substrates	4 to 6	3600	1200 / 2190	0.4	Bronze
MaxInsert		PVD	AlTiN based	The standard for inserts	5	3400	1000 / 1830	0.3	Gray Purple	
HardCut II		PVD	TiSi based	Hard milling applications	3.5 ± 1	3600	1200 / 2190	0.4	Bronze	
		CeramCoat	PVD	AlTiN based	For ceramic inserts	0.7 to 1.5	3400	1000 / 1830	0.3	Gray Purple

IONBOND INTERNATIONAL MULTI-PURPOSE AND LOCAL COATINGS									
Coating	Process	Coating Structure	Applications	Standard thickness (microns)	Hardness (HV 0.05)	Oxidation Temp (°C / °F)	Coefficient of Friction vs Dry Steel	Color	
IonBond International Multi-Purpose Coatings for Cutting Tools	IonBond TiN	PVD	TiN	General purpose steel machining	2 to 4	2600	600 / 1100	0.4	Gold
	IonBond TiCN	PVD	TiCN Multilayer	Rough milling, gear cutting	2 to 4	3000	400 / 750	0.4	Blue-Gray
	IonBond AlTiN	PVD	AlTiN - monolayer	General machining under conventional conditions	1.5 to 2.5	3300	900 / 1650	0.4	Black
	IonBond TiAlCN	PVD	TiAlCN	Machining of cast iron, austenitic stainless and softer Ni-Co alloys. Good for roughing in high feed and low cutting speed	3.5 ± 1	3300	800 / 1470	0.3	Copper
	IonBond GearCut	PVD	AlTi based film	General gear cutting under conventional conditions	4 to 6	3300	900 / 1650	0.4	Dark Gray

Locally Offered Coatings

Locally offered coatings are coatings tailored to specific local applications and markets. IonBond has a long history of working closely with customers to offer tailored coatings to meet their individual needs. Customers need not be worried if they do not find one of their coatings on the above lists because IonBond is committed to offering you the tailored solutions that are a part of your and our success. For more information on IonBond coatings, please contact the IonBond service center nearest you.