

IonBond Multi-Purpose Coatings

Multi-purpose coatings for standard tools where the price – performance ratio is the main driver



A broad range of standard tools, particularly HSS tools, are not subjected to extreme working conditions and do not require high performance coatings. It makes little sense to coat these low-cost tools with a high performance coating when the cost of the coating surpasses the value added they can provide. In addition, a number of machining applications also do not require the highest performing coatings due to the fact that the machining centres employed cannot operate under highly demanding cutting conditions, or the production series is limited.

IonBond multi-purpose coatings are designed to meet your needs at competitive prices.

IONBOND INTERNATIONAL MULTI-PURPOSE AND LOCAL COATINGS								
	Coating	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	TiN	General purpose steel machining	2 to 4	2600	600 / 1100	0.4	Gold
	IonBond TiCN	TiCN Multilayer	Rough milling, gear cutting	2 to 4	3000	400 / 750	0.4	Blue-Gray
	IonBond AlTiN	AlTiN -monolayer	General machining under conventional conditions	1.5 to 2.5	3300	900 / 1650	0.4	Black
	IonBond TiAlCN	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	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.



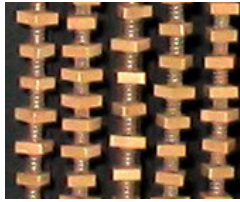
The coated tool on the left eliminates built up edge and improves the quality of the finished work piece.

IonBond counts over 45 coating centers worldwide.

To find a coating center nearest you, please visit our website: www.ionbond.com

IonBond Innovative Performance Coatings

High performance coatings for high-end tools where performance is the main driver



Modern high performance machining has certain demands in terms of productivity and costs where the performance of the tool plays a significant role in determining the total cost of the operation.

In high performance machining, where the tools are subject to extreme conditions, the characteristics and properties of the tool surface are different according to the machining operation, whether turning, milling or drilling, and according to the machining conditions, coolants and the material machined. This is why high end machining requires the appropriate combination of the right tool and protective coating for the specific operation.

IONBOND INNOVATIVE PERFORMANCE COATINGS (IPC)								
	IonBond Coating	Coating Structure	Applications	Standard thickness (microns)	Hardness (HV 0.05)	Oxidation Temp (°C / °F)	Coefficient of Friction vs Dry Steel	Color
DRILLING	Maximizer Top	AlTiN	Deep drilling, finishing applications	3	3300	900 / 1650	0.3	Gray Purple
	PerformDrill	TiSi based	High performance drilling applications in difficult to machine materials	2 ± 0.6	3600	1200 / 2190	0.3	Bronze
	TriboCut	Me-DLC	Machining aluminum with under 12% Si content	2 to 4	2600	350 / 660	0.02	Black
	TetraBond Diamond	T:aC	Machining graphite, aluminum (>12% Si), copper, brass, precious metals	1 ± 0.2	8000	700 / 1290	<0.1	Black
MILLING	HardCut	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	AlTiCrN based	Machining steels with hardness <40 HRC	2 to 4	3000	900 / 1650	0.3	Black Violet
	MaximizerNano	AlTiN based	Performance machining applications	2 to 3	3400	1000 / 1830	0.3	Gray Purple
	TriboCut	Me-DLC	Machining aluminum with under 12% Si content	2 to 4	2600	350 / 660	0.02	Black
	TetraBond Diamond	T:aC	Machining graphite, aluminum (12% Si), copper, brass, precious metals	1 ± 0.2	8000	700 / 1290	<0.1	Black
GEAR CUTTING	MaximizerNano	AlTiN based	High performance gear cutting	2 to 3	3400	1000 / 1830	0.3	Gray Purple
	GearCut Ultra	AlTiCrN based	Performance gear cutting, especially in high feed conditions	3 to 5	3000	900 / 1650	0.3	Black Violet
	TopGear	TiSi based	High speed and dry gear cutting, specifically for carbide substrates	4 to 6	3600	1200 / 2190	0.4	Bronze
INSERTS	MaxInsert	AlTiN based	The performance AlTiN coating for carbide inserts	2 to 4	3400	1000 / 1830	0.3	Gray Purple
	SuperAlTiN	AlTiN based	Milling cast iron and steels up to 45 HRC	2 to 3	3600	1000 / 1830	0.3	Gray Purple
	TopCut	TiSi based	Milling and turning die steel, stainless steel and Inconel	3.5 ± 1	3600	1200 / 2190	0.4	Bronze