

# IONBOND standard coatings

# PVD Forming & Molding

Coating	Material System	Application	Typical Thickness (μ)	Microhardness HV	Max. Service Temp. (°C)	Friction Coefficient	Color
IonBond TiN	Monolayer	General purpose cold forming, punching, wire forming	3 to 5	2300	600	0.4	Gold
IonBond TiCN	Multilayer	Blanking, stainless forming	1 to 3	3000	400	0.4	Blue-Gray
IonBond CrN	Monolayer	General purpose stamping, sheet metal forming	3 to 8	1800	700	0.3	Silver
IonBond DeepDraw	TiCrN	Deep drawing	10	2200	700	0.5	Dark Gray
IonBond SheetForm	TiCrN	Sheet metal forming	5 to 10	2200	700	0.5	Dark Gray
IonBond UltraCast	CrN based	Die casting	6 to 8	3300	800		Silver-Gray
IonBond UltraCast II	Nitriding + TiAlCrN	High performance die casting	6 to 8	3300	1000	0.4	Anthracite
IonBond Forge	Nitriding + TiAlCrN	Hot forging	10	3300	1000	0.4	Anthracite
IonBond MoldProtect	Sputtered CrN	Anti corrosion coating for molds	2	1700	700	0.2	Silver
IonBond RubberMold	Sputtered CrN	Rubber molds	2	1700	700	0.2	Silver
IonBond WearProtect	Sputtered TiN	Wear protection coating for molds	2	2000	600	0.2	Gold
IonBond ADLC	DLC-based	Medical / powder punches	2	4000	300	0.1	Black
IonBond AluForm	DLC-based	Aluminum forming	2 to 3	2200	350	0.1	Black
IonBond Slide	DLC-based	For sliding applications	2 to 3	2200	350	0.1	Black
IonBond MoldRelease	DLC-based	Coating to improve mold release properties	2	2200 to 4000	300	0.1	Black
IonBond MoST (North America)	MoS <sub>2</sub> -based	Sheet forming (galvanized, HSLA, pre-painted), shave punches, hydroforming	1 to 2	> 2000	450	0.03	Gray