ALtima®
Aluminum Titanium Nitride (AlTiN). ALtima® is the original high performance coating. This coating allows tools to be run at higher speeds and feeds in a wide array of materials. Also, it allows the option of running tools dry due to the high oxidation temperature of the coating.

ALtima® Plus
This Aluminum Titanium Nitride (AlTiN) multi-layer coating has optimized coating structure, with pre and post treatment of the coating for optimized high performance drilling in any ferrous material.

ALtima® Blaze
Aluminum Chromium Nitride (AlCrN). ALtima® Blaze is designed to allow higher material removal rates. This coating has a higher oxidation temperature than a typical TiAlN coating. It has shown very good results in nickel alloys, titanium, and other difficult to machine materials. Tools coated with ALtima® Blaze can be used in dry machining.

ALtima® Micro
An ultra thin coating developed specifically for micro tool applications.

ALtima® Xtreme
Designed for high speed and dry machining.

ALtima® Q
A proprietary coating designed to allow for extreme metal removal rates in a broad range of materials such as steels, stainless steels,titanium, & exotic alloys.

Fordlube
Titanium DiBoride (TiB_2) is a unique coating with low Aluminum affinity, smooth surface finish and high hardness. It is ideal for Aluminum and Magnesium alloys as it prevents build-up on cutting edge, provides superior chip flow along with extended wear resistance.

Gem+
Recommended for aluminum and aluminum alloys up to 12% Si, non-ferrous metals and composites. Gem+ provides excellent wear resistance and maintains sharp cutting edges.

GemX
A CVD diamond coating for composites and aluminum that offers the maximum hardness and wear resistance of any of our coatings.

TiN
Titanium Nitride (TiN). TiN coating has shown good results in low carbon steels and many iron-based applications. It is a very popular coating used in the industry today.

TiCN
Titanium Carbonitride (TiCN). TiCN is a multi-layer coating. Because of the multi-layer composition, TiCN is tougher than TiN, even though TiCN is harder. The added toughness of the TiCN coating makes it a good choice for mechanically stressed edges like in end mill applications. The higher hardness makes TiCN a good choice for abrasive applications where higher wear resistance is required.

CERAedge®
CERAedge® is a unique coating that provides excellent performance in high Si Aluminum, Copper, and other abrasive, non-ferrous materials.

Special Coatings
Upon request, M.A. Ford® can provide any commercially available coating. **Any standard uncoated M.A. Ford® cutting tool can be provided with coating if requested.**

Coating Properties

M.A. Ford® Coating	M.A. Ford® Tool Number Designation	Microhardness (HV)	Maximum Service Temp.	Friction Coefficient
ALtima®	A	3100	1100° C / 2012° F	0.42
ALtima® Plus	AP	3200	1100° C / 2012° F	0.25
ALtima® Blaze	B	3200	1100° C / 2012° F	0.35
ALtima® Micro	AM	3800	1100° C / 2012° F	0.30-0.35
ALtima® Xtreme	AX/A/AH	3800	1100° C / 2012° F	0.30-0.50
ALtima® Q	AQ	4500	1100° C / 2012° F	0.40
Fordlube	F	4000	700° C / 1292° F	0.30
Gem+	GP	4710	500° C / 932° F	0.10
GemX	GX	10000	600° C / 1100° F	0.10
TiN	T	2300	600° C / 1112° F	0.40
TiCN	C	3000	400° C / 752° F	0.40
CERAedge®	CE	3400	1100° C / 2012° F	0.25