Coating Styles

Titanium Nitride (TiN) - Gold (2900 HV)*
- TiN coating is a great general-purpose coating that will only help in cutting applications.
- Results in drilling through steel range from 2 times to 6 times life span.
- General machining practices run TiN coated tools at roughly the same speeds and feeds as uncoated.
- You can push it 10–25% faster, but may compromise tool life.
- TiN is the lowest cost single layer coating.
- Manufactured to NAS 907B aerospace specification

Titanium Carbon Nitride (TiCN) - Pink to Purple (4000 HV)*
- Better in stainless steel than TiN.
- Making this coating a better choice for interrupted cut applications, or hand operated applications.
- This coating is also a general-purpose coating that likes to run at slow to medium speeds.
- Adding a layer of TiCN to a cutting tool will increase its life span up to 5 times or 10 times.
- Manufactured to NAS 907B aerospace specification

Titanium Aluminum Nitride (TiAlN) - (4500 HV)*
- ALTiN/TiAIN coating is a great choice in machining stainless steels (all) at any speed.
- This coating can run much faster than other coatings. ALTiN works best in high heat applications where continuous cutting tip temperature of 1,000 degrees can be maintained.
- However, the end user still needs to be cautious to not exceed the limitations of the high-speed steel.
- TiAlN is a high-performance coating which excels in abrasive and difficult-to-machine materials such as cast iron, aluminum alloys, tool steels, and nickel alloys.
- Manufactured to NAS 907B aerospace specification

*Coating hardness is measured in HV (hardness in Vickers). 
Heat treat M2 as the base drills before coating would measure 880 HV (65RC)