

CERAedge™

ADVANCED PRODUCT GROUP



What is CERAedge™ ?

- A ceramic coating with extreme properties
 - Hardness that makes it the 3rd hardest material when compared to industrial diamonds
 - Toughness that is comparable to Titanium
 - Lubricity that approaches Teflon
- CERAedge™ also has extreme heat tolerance

CERAedge™ Properties

- Hardness of 3,400 Hv
- Friction coefficient of 0.06
- Oxidation temperature of 1100 degrees C/ 2012 degrees F
- Coating thickness of 2 – 3 microns
- Non-reactive to Titanium

CERAedge™ combines the heat resistance of conventional AlTiN coating with the hardness and smoothness of amorphous diamond coatings

CERAedge™ Applications

- **Ideal for Titanium-clad composite materials**
 - **Hardness and lubricity ideal for the composite**
 - **Toughness that allows for excellent machining of Titanium**
 - **Only CERAedge™ has properties allowing for ideal drilling of Titanium clad composites**
- **Ideal for aluminum and high silicon aluminum materials**
 - **Hardness and lubricity extend tool life by increasing wear resistance**

CERAedge™ Application

Material: 6061 aluminum extrusion

M.A. Ford® Tool: Series 138, ½" (12.7mm) diameter

RPM: 22,000

IPM: 300 (7,620 mm/minute)

Current Situation: Maximum of 5 parts completed per tool with typical lubricious coating. 2,138 linear inches (54 linear meters) per part, 10,690 linear inches per tool (272 linear meters).

CERAedge™ coated 138 series: 42 parts or 92,976 linear inches per tool (2,360 linear m/tool).

870% more linear inches with CERAedge™!

CERAedge™ Application

Material: Carbon fiber reinforced phenolic parts
M.A. Ford® Tool: ½" (12.7mm) diamond grind router with CERAedge™ coating
Speed: 2,497 RPM, 325 SFM (100 SMM)
Feed: 30 IPM, .012 IPR (762 mm/minute, .30 mm/Rev)
Cuts: Slotting, pocketing and circular interpolating

The CERAedge™ router ran 20 parts compared to the competitor's diamond coated router. In addition, the CERAedge™ coated tools improved finish and removed burs on the customer part.

25% more parts produced with CERAedge™ !

CERAedge™ Application

Material: Solid carbon part

M.A. Ford® Tool: Series 207 brad and spur drill with CERAedge™ coating, #26 (.147"/3.73mm) diameter

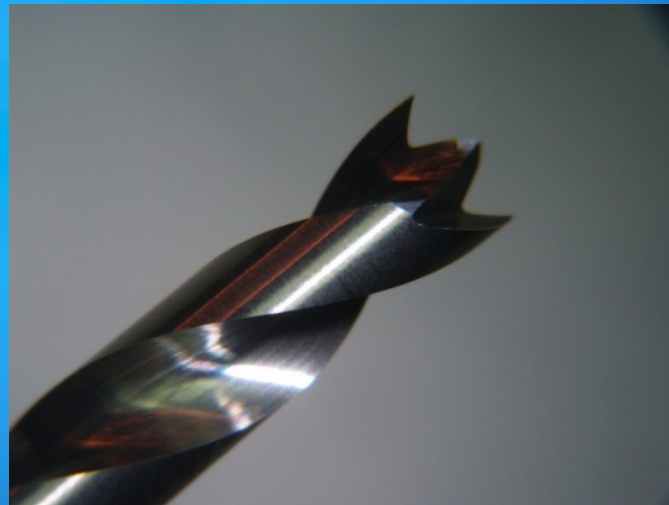
Speed: 7,800 RPM, 300 SFM (90 SMM)

Feed: 7.8 IPM, .001 IPR (198 mm/minute, .025mm/Rev)

Cuts: Drilling 1" (25.4mm) deep

The CERAedge™ coated drill drilled 3 times more quality holes than the uncoated competitor drill

300% more quality holes with CERAedge™ !



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Questions?

Contact an MA Ford® Booth representative or call 800-553-8024/563-391-6220

www.maford.com



An M.A. Ford® A.P.G.