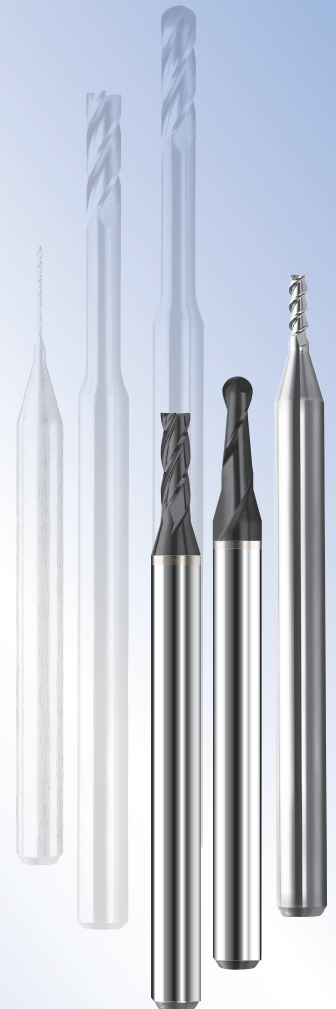
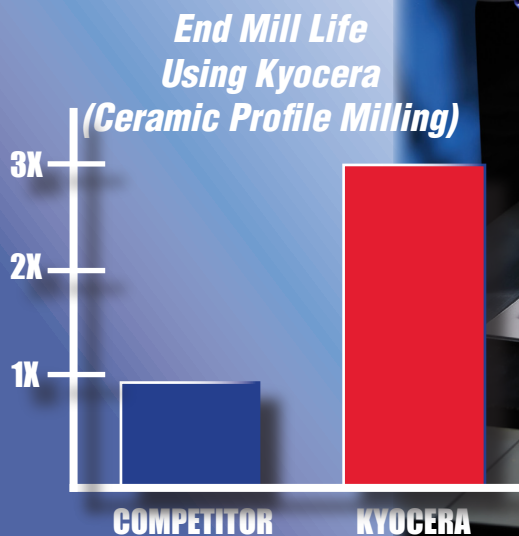


Precision Cutting Tools For Ceramics Machining

The Kyocera Advantage:

- ***More Parts Machined Per Tool Used***
- ***Improved Part Size Control, Less Rejects, and Better Quality***
- ***Greater Process Efficiency and Lower Costs***



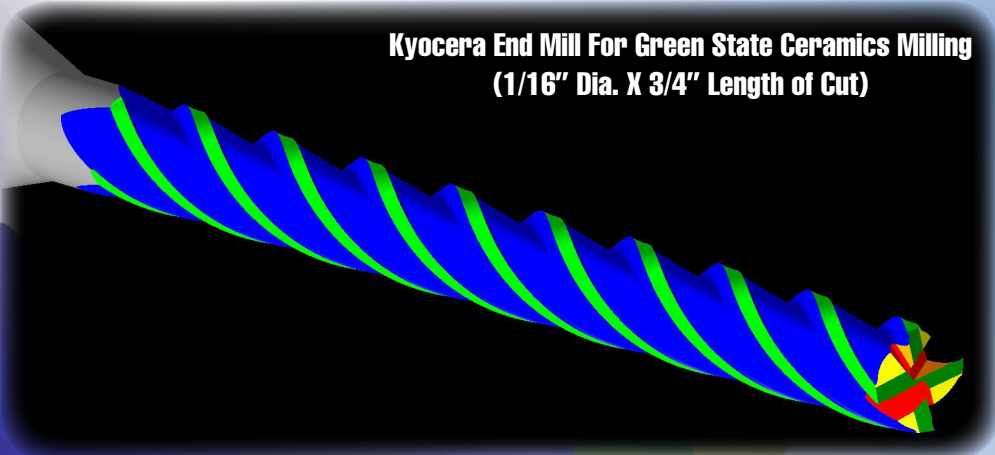
We put the micro into your machining!™

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INTERNATIONAL: 001.714.428.3688
www.KyoceraMicroTools.com

Kyocera is pleased to introduce a line of precision cutting tools optimized for machining ceramics. With a 20 year heritage of grinding the world's tightest tolerance sub-micron grade carbide cutting tools, our engineers met the challenge of producing cutting tools that improved part size control, improved surface quality, and reduced rejects of advanced ceramic components.

Whether you are struggling with burrs, parts falling out of tolerance, or inadequate cutting tool life, we have cutting tool designs that will meet your needs.



**Kyocera End Mill For Green State Ceramics Milling
(1/16" Dia. X 3/4" Length of Cut)**

Kyocera Users Report:

- Increased Tool Life • Reduced Burrs
- Improved Part Surface Finish • Technical Support
- Better Overall Efficiency

DRILLS

- DIA. 0.0015" - 1/4"
- L.O.C. 0.040" - 1/2"
- FLUTES 2
- COATED/UNCOATED
- 90,118,130 D.P.

CERAMIC MATERIALS

MACOR® **GRAPHITE**
ALUMINA **ZIRCONIA**

DRILLS

Kyocera offers many sizes and styles of drills made with premium sub-micron grade carbide. Sizes range from 0.0015" to 1/4" Diameter. Extended reaches and overall lengths for your custom diameter can be created. Diameter tolerances as tight as +/- 25 Millionths of an inch and Coatings are available upon request.

END MILLS

Kyocera's end mills for Ceramics machining are made of premium sub-micron grade carbide. Sizes range from 0.005" to 1/4" Diameter. Geometries and carbide grades have been optimized specifically for the various ceramic materials.

END MILLS

- DIA. 0.005" - 1/4"
- L.O.C. 0.008" - 3/4"
- FLUTES 2
- CLEARANCE/REACH
- SQUARE/BALL ENDS

CERAMIC MATERIALS

MACOR® **GRAPHITE**
ALUMINA **ZIRCONIA**