



Prematech
ADVANCED CERAMICS™



Precision Machining of Technical Ceramics

AEROSPACE & DEFENSE • COMMERCIAL • LIFE SCIENCES/ANALYTICS • RESEARCH • SEMICONDUCTOR



Prematech is an industry leader in the precision machining of advanced ceramics.

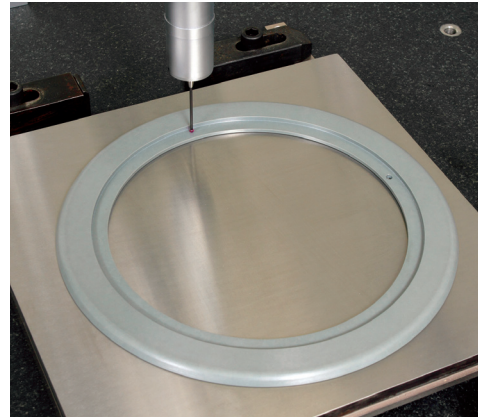
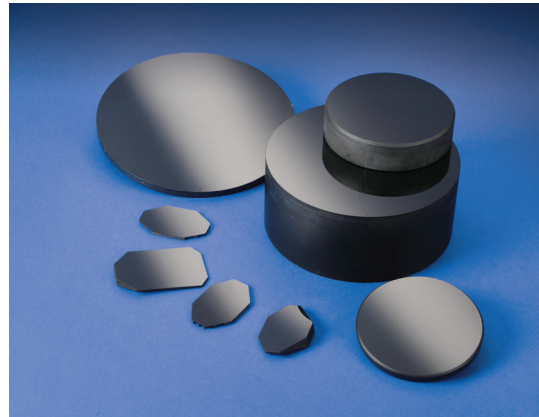
We've achieved and maintained that position by asking insightful questions to develop a thorough understanding of our customers' applications.

We use our deep technical expertise and hands-on experience to help you achieve:

- > Proper Selection of Materials
- > Fast Turnaround Times
- > Efficient Project Management

We look forward to discussing your requirements and working with you soon.

Your Single Source for Precision Machining of Technical Ceramics



For over 30 years, Prematech Advanced Ceramics has been machining components made from a wide variety of advanced ceramics. We routinely handle materials from alumina to zirconia, with special expertise in silicon carbide. Our machining capabilities range from basic to complex geometries and span a huge range of part sizes. We support single prototypes to full production, and our components are used in hundreds of applications.

Gain a Competitive Edge with Advanced Ceramics

The use of advanced ceramics has grown tremendously in recent years. Their special properties are finding value in an ever-expanding range of demanding applications. Advanced ceramics can deliver unique combinations of hardness, corrosion-resistance, low weight, and thermal and electrical properties. And for

many parts, especially smaller ones, the material cost is similar to that of non-ceramics.

When you work with Prematech, you leverage decades of engineering expertise in advanced ceramics. We can help you select the right material and critique your design to aid in its manufacturability.

A Superior Manufacturing Partner

When it comes to precision ceramic machining & grinding techniques, Prematech sets the industry standard. Our expertise, supported by a Lean Manufacturing Program, allows us to provide you with precision, quality, value, and quick turnaround.

Our machining operations are comprised of:

- > Grinding
- > Lapping
- > Polishing

When **grinding**, we choose from a wide selection of wheels based on the dimensions and surface roughness you need to achieve.

For **lapping**, we use a wide variety of materials to best abrade a specific part.

Our **polishing** capabilities allow us to achieve surface finishes of 1 nm on most materials.

Committed to Your Success

Over the past several years, we've invested more than \$4 million in facilities and equipment that have resulted in significant growth.

The modern equipment in our 27,000 ft² facility is used for:

- > Universal, Surface & Creep-Feed Grinding
- > ID, OD, Jig & Centerless Grinding
- > 5-Axis CNC Machining
- > Hole Drilling (down to .020")
- > Flat/Roll Lapping & Polishing
- > Aspheric Lens Generation



C E R T I F I E D

OUR QUALITY POLICY

It is the policy of Prematech to meet or exceed customer requirements by designing and incorporating methodologies based on sound scientific and engineering principles applied to the use of emerging technologies for achieving continuous improvement.

An Action-Based Commitment to Quality

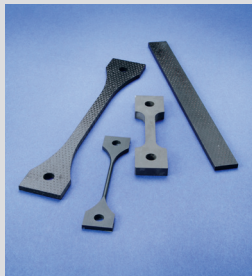
Activities we perform to make certain that all components we manufacture meet the tightest specifications are:

- > First Article Approval (In-Process Inspection)
- > Optical Measuring & Monitoring
- > Metrology Testing
- > 3D Surface Characterization

Our dedication to best practices is exemplified by:

- > Earning ISO 9001 Certification
- > Meeting ITAR Requirements (International Traffic in Arms Regulations)
- > Fulfilling SAM Stipulations (System for Award Management)

At Prematech, we give you an unbeatable combination of technical expertise and production quality.



TEST SPECIMENS

Our expertise and knowledge of ASTM standards ensures exceptional quality and repeatability with all test specimens, including:

> MOR	> Rupture	> Compression
> Tensile	> Toughness	> Chevron Notch
> Bi-Axial	> Shear	> And more!



MARKETS & MATERIALS

Prematech offers a comprehensive array of services to customers in these markets:

- > Aerospace & Defense
- > Commercial
- > Life Sciences/Analytics
- > Research
- > Semiconductor

The technical ceramics we use include:

- > Alumina
- > Aluminum Nitride
- > Boron Carbide
- > Boron Nitride
- > Composites (CMC, MMC)
- > Corderite
- > Ferrites
- > Glass
- > MACOR
- > Quartz
- > Sapphire
- > Silicon
- > Silicon Carbides
- > Silicon Nitrides
- > Titanium Diboride
- > Tungsten Carbide
- > Zinc Selenide
- > Zirconia

