

# Capabilities Statement



**Superior Technical Ceramics**  
Engineering. Partnership. Solutions.



## Company Data

Superior Technical Ceramics is a U.S. owned Small Business that is a market-leading supplier of extreme environment materials to many high tech industries.

Our 170 U.S. based employees provide the latest in ceramic processing expertise to support exceptional material performance and exacting tolerance control.

Our multiple buildings currently encompass approximately 135,000 square feet of manufacturing space.

## Industrial Codes

**DUNS:** 002002210

**CAGE:** 8ACR2

**NAICS:** 327999, 327110,  
327113, 327120

**SAM Registered**

## Contact

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## Materials & Processing Capabilities

- **Alumina:** Low to high purity (up to 99.9%), Zirconia Toughened (ZTA)
- **Zirconia:** Magnesia Stabilized (MSZ), Ytria Stabilized (YTZP), Ceria Stabilized (CSZ)
- **Nitrides and Carbides:** Aluminum Nitride, Silicon Nitride, Silicon Carbide
- **Materials Testing** for bulk material formulation and fired product evaluation.
- **Large batch** powder milling and spray drying (up to 3000kg)
- **Forming:** 3.5" dia **Extrusion**; 12" dia **Mechanical Pressing**; 20" dia **Isostatic Pressing**; **Low Pressure Injection Molding** (LPIM)
- **Machining:** 12 multi-axis machining centers (3, 4 and 5 axis, wet and dry); 24 lathes (wet and dry); multiple custom machines.
- **Kilns:** 15 gas fired and electric kilns; Qty 2 6"-dia hydrogen tube furnaces; 8" dia Sinter HIP Furnace.
- **Surface Grinding, Honing, Lapping, Glazing, Metallization**

## Differentiators

- **Full Product life-cycle support**, from material development, to rapid prototype orders, through high volume production.
- **Complete in-house capabilities** to assist with material selection, engineering, tooling, and manufacturing of technical ceramics
- **Focus on monolithic ceramics**, offering unique material formulations
- **Dedicated engineers and scientists** with experience in powder processing, forming, sintering and machining of in-house as well as customer supplied formulations
- **Toll processing** to support advanced development projects.

## Industry Experience:

- Aerospace & Defense
- Energy
- Oil & Gas
- Instrumentation
- Semiconductor
- Industrial Equipment