



**SEMICONDUCTOR  
CERAMIC APPLICATION  
GUIDE**



semiconductor



thermal



mechanical



wear



fluid



electronic

## ADVANCED MATERIALS AND COMPONENTS FOR SEMICONDUCTOR MANUFACTURING

CoorsTek supports the semiconductor manufacturing industry by supplying ceramic materials and chamber-critical components used in chip-processing equipment. From raw material design and production to finished and assembled components, our vertically integrated manufacturing ensures quality for every step of the process.

### ETCH



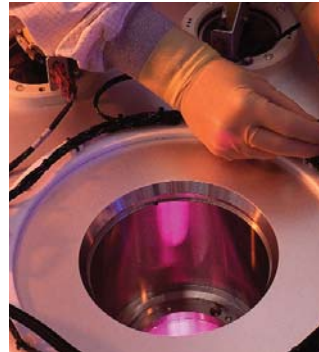
**Components:**

- Shower heads
- Windows
- Focus Rings
- Domes
- Shields
- Nozzles

**Materials:**

- PlasmaPure™ Alumina
- PURE SiC™ CVD SiC
- AD-995 Alumina

### CVD, PVD, ECP



**Components:**

- Gas distribution plates
- Chamber liners
- Domes
- Plating insulators
- Cover rings

**Materials:**

- PlasmaPure Alumina
- PURE SiC™ CVD SiC
- Engineered arc-spray coatings
- AD-995 Alumina

### HIGH-TEMPERATURE – RTP, EPI



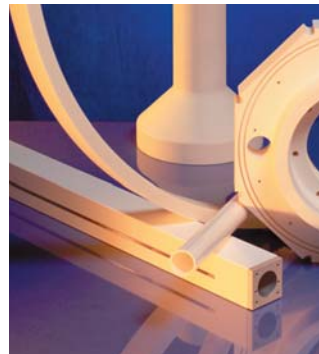
**Components:**

- Edge rings
- Shields
- Low-Mass lift pins
- Thermal couple sheaths
- Susceptors

**Materials:**

- PURE SiC™ CVD SiC
- SC-DS Sintered SiC
- PlasmaPure™ Alumina

### IMPLANT



**Components:**

- RF shields
- Insulators

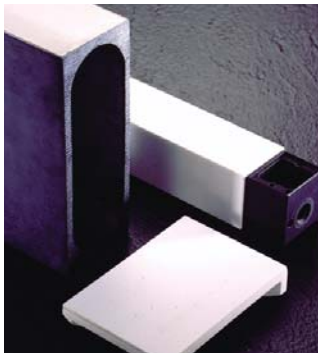
**Material:**

- PlasmaPure Alumina
- PURE SiC™ CVD SiC
- ESD Ceramics
- AD-995 Alumina



CoorsTek exclusive  
OpX manufacturing  
and quality system

### LITHOGRAPHY, WAFER INSPECTION



**Components:**

- Air-bearing guideaways
- Air bearings
- Interferometer reference mirrors
- Scale mounts

**Materials:**

- Fine-Grained Alumina
- SC-DS Sintered SiC
- Dura-Z™ Zirconia

### GENERAL APPLICATIONS



**Components:**

- ESD end effectors
- Lift pins
- Wafer chucks

**Materials:**

- ESD Ceramics
- PlasmaPure™ Alumina
- SC-DS Sintered SiC
- Brazed Ceramic Assemblies
- Dura-Z™ Zirconia
- Multi-layer Channeled Ceramic Substrates
- AD-995 Alumina

For expert assistance with your next project, please contact us at **800-455-4050** or send an e-mail to [semi@coorstek.com](mailto:semi@coorstek.com).

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