Expert Systems and Solutions for the Silicon Carbide & Wide Band Gap Semiconductor Industry
One major focus area is Chemo-Mechanical Polishing (CMP) and delivering near-perfect surfaces on N-type and Semi-Insulating SiC wafers.

<table>
<thead>
<tr>
<th>SABRE® MircoPol AF</th>
<th>SABRE® MircoPol CS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C Face</strong></td>
<td><strong>Si Face</strong></td>
</tr>
<tr>
<td>Removal Rate</td>
<td>Roughness (Ra)</td>
</tr>
<tr>
<td>1.10 micron/hr</td>
<td>0.25 micron/hr</td>
</tr>
<tr>
<td>1.37 Å</td>
<td>0.92 Å</td>
</tr>
<tr>
<td>1.3 micron/hr</td>
<td>0.30 micron/hr</td>
</tr>
<tr>
<td>1.79 Å</td>
<td>1.18 Å</td>
</tr>
</tbody>
</table>

See Figure 1

See Figure 2

Figure 1. Sabre Micropol AF — Polished C Face (Ra=1.37 Å; Scan Conditions 1 Hz, 10x10 micron, Park XE-150)

Figure 2. Sabre Micropol CS — Polished C Face (Ra=1.79 Å; Scan Conditions 1 Hz, 10x10 micron, Park XE-150)
## Let's enhance your process steps

<table>
<thead>
<tr>
<th>Our expertise</th>
<th>Our full line of products</th>
</tr>
</thead>
</table>
| **Crystal Trimming & Diameter Grind** | **Coolants** — Sabre® Microcut 28S, Sabre Microcut 707F, Tech Cool® 3700  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105 |
| **Flat(s) Grinding** | **Coolants** — Sabre Microcut 28S, Sabre Microcut 707F, Tech Cool 3700  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105 |
| **Wafer Slicing** | **Diamond Powders** — Sabre Micropowder D  
**Diamond Slurries** — Sabre Microlap D  
**Vehicle** — Sabre Microcut 61V  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105 |
| **Edge Rounding** | **Coolants** — Sabre Microcut 28S, Sabre Microcut 707F, Tech Cool 3700  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105 |
| **Lapping & Polishing** | **Diamond Powders** — Sabre Micropowder D  
**Diamond Slurries** — Sabre Microlap D  
**Vehicle** — Sabre Microcut 61V  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105  
**Polishing Pads** — Sabre Pol P |
| **Chemo-Mechanical Polishing (CMP)** | **CMP Slurry (Abrasive Free)** — Sabre Micropol AF  
**CMP Slurry** — Sabre Micropol CS |
| **Cleaning (Post-CMP)** | Sabre Microclean 565 |
| **Fabricated Wafer Thinning (Backgrind/Lap/Polish) & Dicing** | **Coolants** — Sabre Microcut 28S, Sabre Microcut 707F, Tech Cool 3700  
**Diamond Powders** — Sabre Micropowder D  
**Diamond Slurries** — Sabre Microlap D  
**Vehicle** — Sabre Microcut 61V  
**Polishing Pads** — Sabre Pol P  
**Cleaners** — Sabre Microclean 565, Sabre Microclean 227, Sabre Microclean 129, Sabre Microclean 105 |

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Our focus is you, our customer

We produce coolants, lubricants, abrasive compounds/slurries, and cleaners used in the machining and finishing of electronic materials and device fabrication.

Our global team of locally available chemists, QA/process engineers, and polishing scientists bring their expertise to you to enhance your process efficiency.

Chemetall Precision Microchemicals is based in Fremont, California, USA, in the heart of Silicon Valley, with strategically located facilities worldwide. We have developed a range of chemistries and fluids for all stages of machining and finishing SiC wafers and other high value Wide Band Gap Semiconductor (WBGS) materials.

At our facility, we maintain:
- An R&D laboratory with state-of-the-art analytical equipment
- A scale-up manufacturing plant
- Tribological machinery and lapping/polishing and chemo-mechanical planarizing (CMP) tools

Our global facilities offer high volume manufacturing capabilities.

Chemetall, a global business unit of BASF Coatings, is a leading global supplier of specialty chemicals with a focus on processes for the surface treatment of metals, glass, and plastics. Chemetall Precision Microchemicals develops and manufactures precision engineered fluids for the sawing, dicing, grinding, lapping, polishing, and cleaning of a wide spectrum of materials used in high-end technology industries.

We take a collaborative approach for product development and are dedicated to solving customers’ material processing challenges.

Please visit us at www.ChemetallPrecisionMicrochemical.com.

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