

### Grain Size Distribution

$d_{10}$	< 25 $\mu\text{m}$
$d_{50}$	$\sim 70 \mu\text{m}$
$d_{90}$	> 190 $\mu\text{m}$

### Chemical Composition

SiC	> 99.7 – 99.9 %
$\text{Al}_2\text{O}_3$	< 0.1 %
CaO	< 0.1 %
$\text{Fe}_2\text{O}_3$	< 0.1 %

These properties are typical but do not constitute specifications

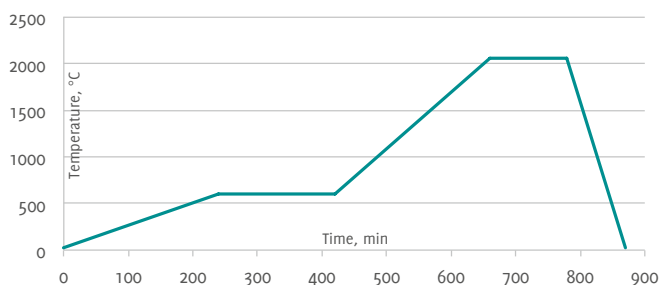
### Physical Properties

Green Density <sup>1)</sup>	1.8 $\text{g}/\text{cm}^3$
Sintered Density <sup>1)</sup>	3.13 – 3.15 $\text{g}/\text{cm}^3$
Apparent Density	0.75 – 0.80 $\text{g}/\text{cm}^3$
Flexural Strength	$\sim 480 \text{ MPa}$
Shrinkage	17.5 %
$\Delta m$ <sup>2)</sup>	10 %
Color	black

1) at 200 MPa 2) weight loss after sintering

### Recommended Sintering Conditions

Sintering Temperature	2050 °C
Debinding	600 °C



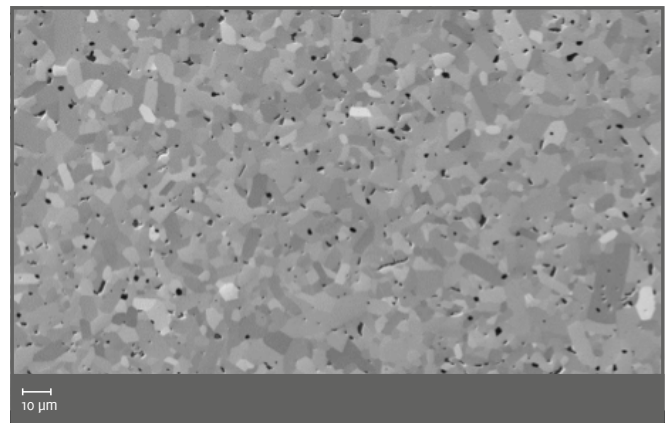
The shown debinding and sintering cycles are exemplary. More information on request.

### Applications

Two Step Rings, Simple Ring, for Cold Isostatic Pressing, Green Machining, Parts with Complex Geometry

### Advantages

- Excellent powder flowability and pressing behavior for low variance of die filling and green density.
- High dimensional accuracy after sintering, low dimensional scrap rate.
- Improved binder system with non-sticking properties on die surface. Reduced down time for mold cleaning.
- Formulation with eco-friendly carbon precursor. No use of phenolic resin. Clean and safe debinding process without toxic emissions. Reduced deposits inside debinding equipment provide for reduced maintenance down time.
- Reduced pressure to obtain the required green density. Reduced cost factor related to tool wear.
- High purity Silicon Carbide for excellent material performance.



Micro section

