

Grain Size Distribution

d_{10}	< 25 μm
d_{50}	~ 70 μm
d_{90}	> 190 μm
Specific Surface Area	-

Chemical Composition

SiC	99.7 – 99.9 %
Al_2O_3	< 0.1 %
CaO	< 0.1 %
Fe_2O_3	< 0.1 %

These properties are typical but do not constitute specifications

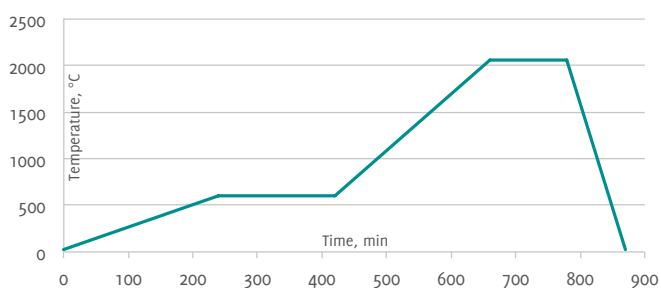
Physical Properties

Green Density ¹⁾	1.8 g/cm^3
Sintered Density ¹⁾	3.13 – 3.15 g/cm^3
Apparent Density	0.75 – 0.80 g/cm^3
Flexural Strength	~ 420 MPa
Shrinkage	~ 17.5 %
Δm ²⁾	~ 10 %
Color	black

1) at 200 MPa 2) weight loss after sintering

Recommended Sintering Conditions

Sintering Temperature	2050 °C
Debinding	600 °C



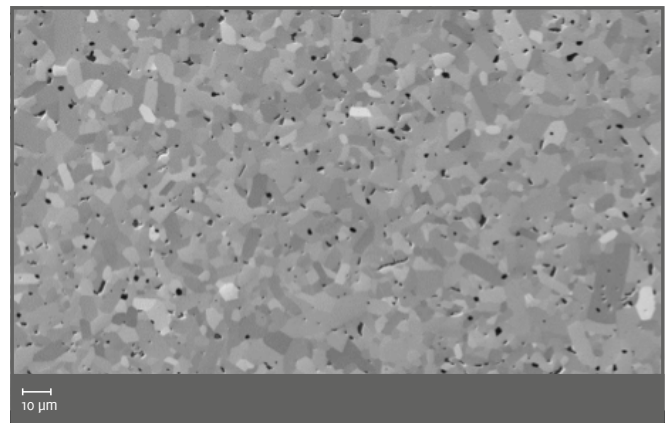
The shown debinding and sintering cycles are exemplary. More information on request.

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

