

Grain Size Distribution

d ₁₀	< 20 μm
d ₅₀	~ 80 μm
d ₉₀	> 160 μm

Chemical Composition

SiC	60 %
B ₄ C	40 %
Al ₂ O ₃	< 0.1 %
CaO	< 0.1 %
Fe ₂ O ₃	< 0.1 %

These properties are typical but do not constitute specifications

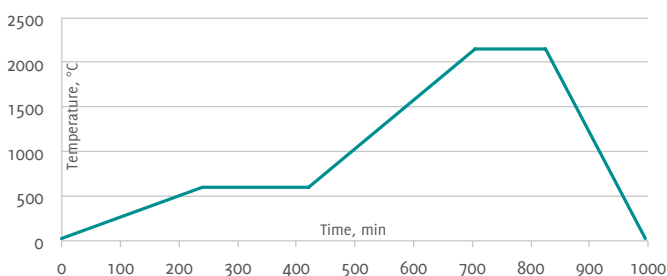
Physical Properties Preliminary Data

Green Density ¹⁾	1.8 g/cm ³
Sintered Density ¹⁾	2.8 – 2.9 g/cm ³
Apparent Density	0.79 g/cm ³
Flexural Strength	280 – 320 MPa
Shrinkage	14 – 15 %
Δm ²⁾	~ 11 – 12 %
Color	black

1) at 200 MPa 2) weight loss after sintering

Recommended Sintering Conditions

Sintering Temperature	2050 – 2150 °C
Debinding	600 °C



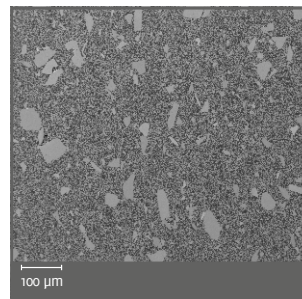
The shown debinding and sintering cycles are exemplary. More information on request.

Applications

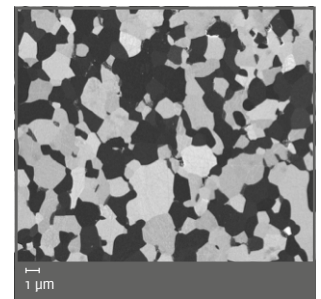
Ballistic Tiles, Wear Protection, Wear Resistance, for Cold Isostatic Pressing, Green Machining, Parts with Complex Geometry

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



Micro section

