IKH 604
SiC RTP T4.05

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

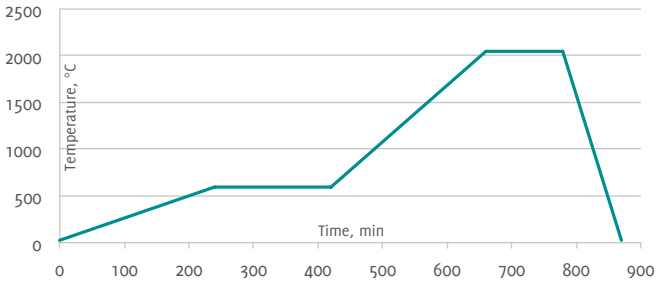
Physical Properties

Green Density [1]	1.9 – 1.98 g/cm³
Sintered Density [1]	3.15 – 3.18 g/cm³
Apparent Density	0.81 – 0.85 g/cm³
Flexural Strength	~ 460 MPa
Shrinkage	~ 17 %
Δm [2]	~ 12 – 13 %
Color	black

1) at 200 MPa 2) weight loss after sintering

Recommended Sintering Conditions

Sintering Temperature	2050 °C
Debinding	600 °C



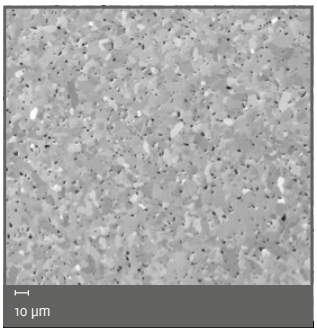
The shown debinding and sintering cycles are exemplary. More information on request.

Applications

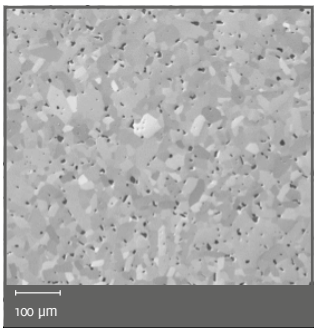
For Cold Isostatic Pressing, Green Machining, Parts with Complex Geometry, Milling Tools, Heat Exchangers

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

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