IKH 655
SiC/B_4C RTP 60/40

Grain Size Distribution

d_{10}	< 20 µm
d_{50}	~ 80 µm
d_{90}	> 160 µm
Specific Surface Area	–

Chemical Composition

SiC	60 %
B_4C	40 %
Al_2O_3	< 0.1 %
CaO	< 0.1 %
Fe_2O_3	< 0.1 %

These properties are typical but do not constitute specifications

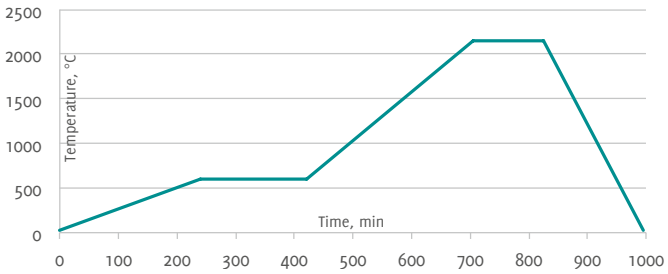
Physical Properties Preliminary Data

Green Density [1)]	1.8 g/cm³
Sintered Density [1)]	2.8 – 2.9 g/cm³
Apparent Density	0.79 g/cm³
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



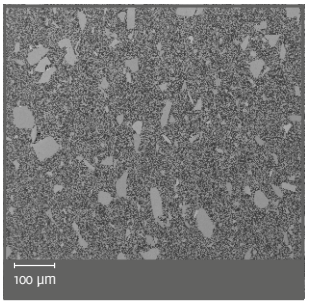
The shown debinding and sintering cycles are exemplary. More information on request.

Applications

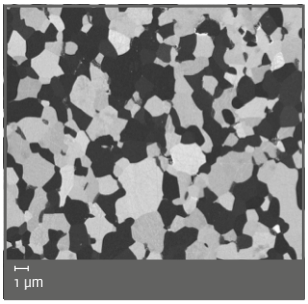
Ballististic Tiles, Wear Protection, Wear Resistance, for Cold Isostatic Pressing, Green Machining, Parts with Complex Geometry

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

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