

Material	Green Alpha Silicon Carbide
Binder System	Acrylic Resin
Carbon System	Starch Base Carbonizing Binder
Application	Two step rings, simple rings

Product Number:

IKH 601

Typical Powder Characteristics

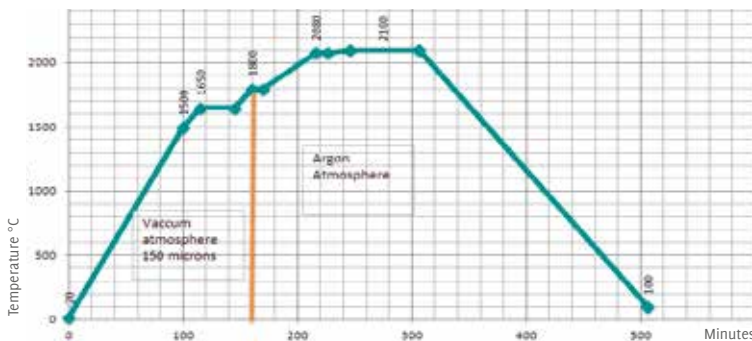
Chemical	Typical Value
Bulk Density	0,750 Grm/cm ³
Tap Density	0.850 Grm/cm ³
Pressed Density @ 1300 Bar ISO	1,8 Grm/cm ³
Green Strength	3 Mpa
Axial Pressing / Shrinkage @ 1300 kg/cm ²	1,75 / 1,230
Axial Pressing / Shrinkage @ 1500 kg/cm ²	1,8 / 1,224
Axial Pressing / Shrinkage @ 1800 kg/cm ²	1,85 / 1,222

Typical Chemistry Analysis

Chemical	Typical Value
Fe	<0.05%
Al	<0.05%
Ti	<0.02%
Ca	<0.02%
Mg	<0.01%
Na	<0.01%
K	<0.01%

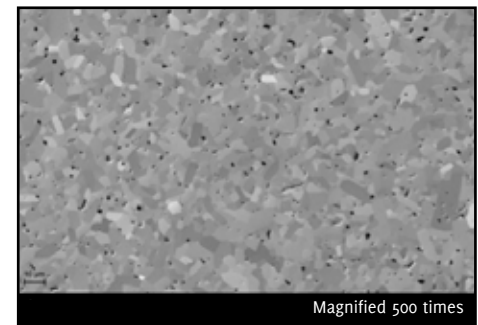
Sintering Curve

Debinding cycle and other Sintering cycles are available on request.



Sintered Body Properties

Characteristic	Typical Value
Sintered Density	3,15 Grm/cm ³
Wt loss	10 %
Microstructure	<10 Microns.
Hardness Knoop	2600
Compressive Strength	2500 Mpa
Flexural Strength	400 Mpa
Elastic Modulus	400 Gpa
Thermal Expansion Rt To 400 C	4,5 X10 ⁻⁶ m/m/K



Magnified 500 times

Micro section

Advantages.

- Excellent powder flowability that reduces the variation filling the die ensuring consistency in green density.
- Reduction of non conforming parts due to dimensional problems after sintering as a result of excellent flowability and pressing behavior.
- Improved binder system to eliminate sticking to die during the compaction. Efficiency in the press is increased due to less down time to clean molding tools.
- RTP formulation contains a carbon precursor environmentally friendly. No use of phenolic resin. Our carbonizing binder makes the coking process clean and safer avoiding toxic emissions to environment and less down time for maintenance in rough vacuum pump.
- Cost reduction in tools worn out due to lower pressures needed.
- High purity Silicon Carbide used as raw material to ensure correct densification and excellent material performance.