SiC and B_4C Powders

We supply multiple grainsizes of SiC and B_4C powders and recipes for ceramic sintering and other applications such as coating and semiconductor manufactures.

1, Ready-to-use SSiC Powder (SC01®)

Composed of green alpha SiC, acrylic resin as the binder and starch carbon as the carbon system, SC01® is a turn-key solution for self-sintered silicon carbide (SSiC) manufacture.

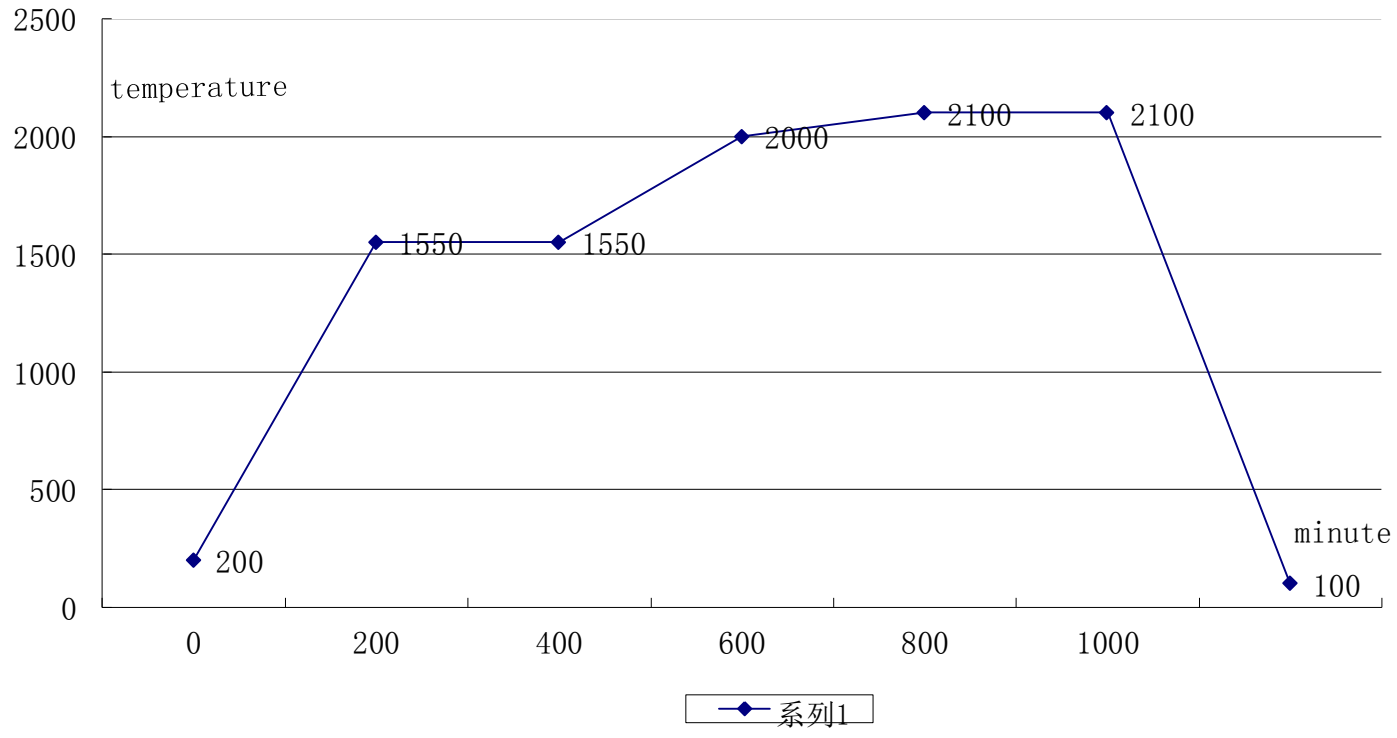
Powder's Physical Properties

Index	Unit	Value
Grainsize	mesh	≤80
Moisture	%	≤1.5
Bulk Density ISO3369	g/cm^3	0.81
Pressed Density @1300 Bar	g/cm^3	≥1.85
Green Strength	Mpa	2.5
Axial Pressing Shrinkage @1500 Bar		1.8-1.21
Axial Pressing Shrinkage @1800 Bar		1.88-1.2

Powder Specification

Fe %	Al %	Ti %	Ca %	Mg %	Na %	K %	Balance
<0.05	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	SiC & C

Instuction on debindering and other processing is available on request:

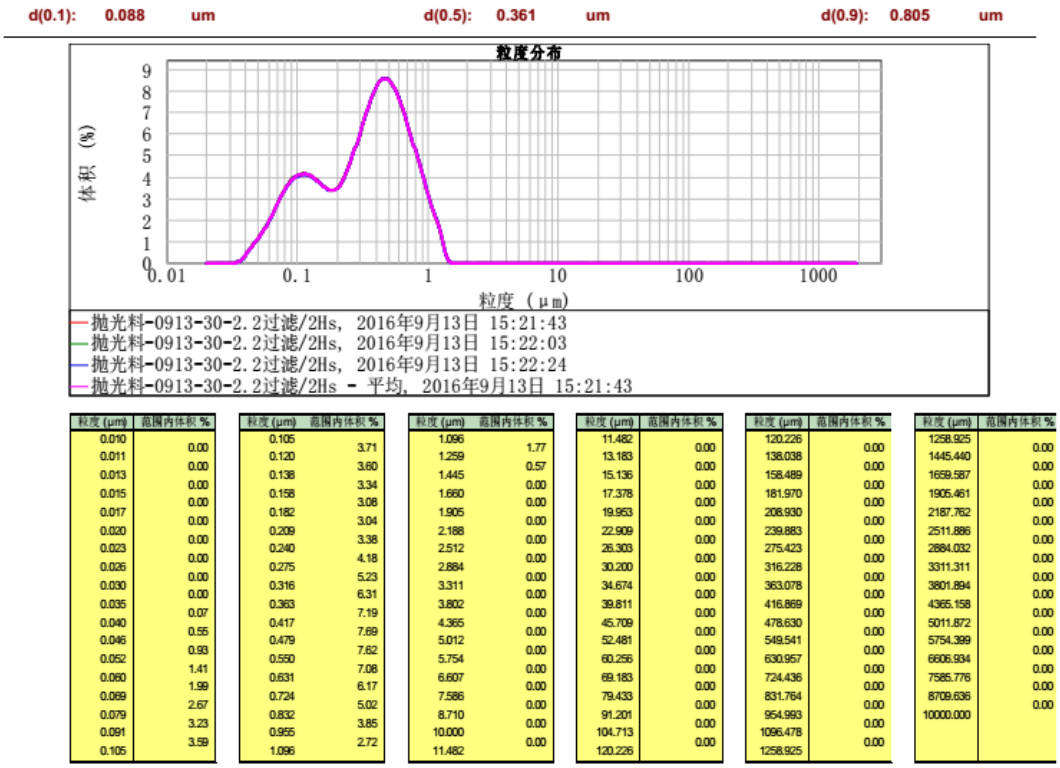


Sinter's Physical Properties

Index	Unit	Value
Density ISO3369	g/cm^3	≥3.15
Weight Loss	%	8
Microstructure ISO4505	10μm	≤2
HV_1 ISO3878		2400
Compressive Pressure	Mpa	3910
Flexural Strength	Mpa	380
Elastic Modulus	Gpa	420
Thermo Expansion Rt to 400℃	$4.5x10^{-6}$ mm/mm℃ K	4.02

2, Customized SiC and B_4C Micro Powders

We are open to SiC and B_4C micro powder requirements with the min grainsize at 0.2μm for various applications such as abrasives and additives.



SiC Granular Analysis

Serge Weydert

General Manager

H.M.T. (Hard Materials Technologies) GmbH

7, rue du Marche

9260 Diekirch

Luxembourg

Tel: +352 691 968613

E-mail: weydert.s@hmt-cera.com

http://www.hmt-cera.com