READY TO PRESS SILICON CARBIDE POWDER

Ready To Press Silicon Carbide Powders are specially formulated powder products that aid in the manufacturing of pressed ceramic parts. The RTP powders are fine powders combined with a binding agent to facilitate the pressing of green parts. The RTP products are typically graded by their specific surface areas.

Ready-To-Press granules for solid-state(SSiCs) sintered technical ceramics. RTP granules are spray dried granules. The premix is doped with sintering additives, temporary binder and pressing aids and is ready to be pressed into a green body.

Ready to Press 13 m^2/G is suitable for dry pressing, uniaxial and isostatic. Ready to Press is particularly suitable for isostatic dry pressing.

Panadyne offers a range of RTP powders to meet your specific application.

TYPICAL APPLICATIONS

Technical Ceramic Parts	Armor	High Temp Sensors
Hot-pressed Parts	Heat Transfer	Ceramic Wear Parts

TYPICAL PROPERTIES

- High Hardness
- Chemical Inertness
- High Thermal Conductivity
- Abrasion Resistance
- Low Coefficient of Thermal Expansion
- Thermal Shock Resistance
- Strength at High Temperature Ranges

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READY TO PRESS SILICON CARBIDE POWDER TECHNICAL DATA

COMPOSITION

	SINTERING ADDITIVES		BINDER CONTENT	MOISTURE CONTENT
	Carbon	Boron	%	%
Ready to Press 13 m^2/G	Carbon Black	Boron Carbide	Approx. 4,8	Approx. 0,6
Ready to Press 15 m^2/G	Resin		Approx. 9,5	Approx 0,6

TYPICAL PHYSICAL PROPERTIES

	GRANULE SIZE		BULK DENSITY	FLOWABILITY "HALL"	APPEARANCE	GREEN DENSITY		
	Max	Average	g/cm3	Sec/25gr		125 MPa	125 MPa	125 MPa
Ready to Press 13 m^2/G	250 µm	100 µm	0,75	55	Dark Color	1,82 g/cm3	1,82 g/cm3	1,82 g/cm3
Ready to Press 15 m^2/G	250 µm	100 µm	0,78	50	Light Color	1,80 g/cm3	1,80 g/cm3	1,80 g/cm3

TYPICAL PHYSICAL PROPERTIES OF SINTERED PARTS

	DENSITY	MICROHARDNESS HV 100	INDENTATION FRACTURE TOUGHNESS	LINEAR SHRINKAGE	BENDING STRENGTH
	g/cm^3	GPa	MPa	%	4 Point MPa
Ready to Press 13 m^2/G	3,13	25	3,5	APPROX. ~ 16	380
Ready to Press 15 m^2/G	3,17	26	4,0	APPROX. ~ 18	450

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