

Silicon carbide ready-to-press granules for solid-state (SSiC) sintered technical ceramics.

Densitec granules are spray dried granules, based on our standard black Sintex 13C or green Sintex 15C. The premix is doped with sintering additives, temporary binder and pressing aids, and is ready to be pressed into a green body. Both are ideal for uniaxial pressing, and Densitec 15 is particularly suitable for isostatic pressing.

Packaging 15 kg plastic pails

Composition

	Sintering additives		Binder content (total organic)	Moisture content	SiC type
	Carbon	Boron	%	%	balance
Densitec 13	Carbon black	Boron carbide	approx. 4.8	approx. 0.6	Sintex 13C
Densitec 15	Resin	Boron carbide	approx. 9.5	approx. 0.6	Sintex 15C

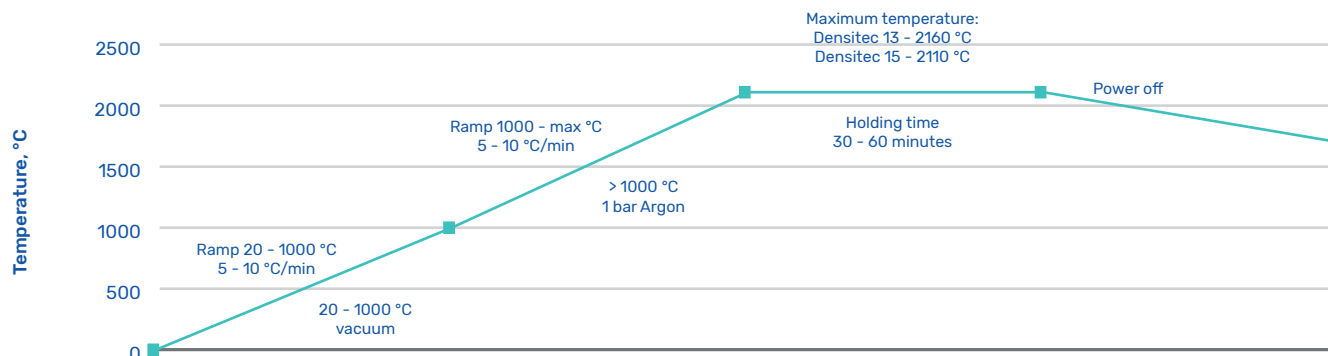
Typical physical properties of...

	Granules				Green body							
	Size		Bulk density	Hall flow-meter	Green density			Green strength diametral compression				
	max	Average			125 MPa	150 MPa	225 MPa	curing 120 C				
Densitec 13	250	100	0.85	55	1.82	1.85	1.89	150 MPa	30 min	1 h	2 h	
Densitec 15	250	100	0.85	45	1.8	1.85	1.88	0.5 MPa	1 MPa	1.3 MPa	2.3 MPa	

Typical properties of sintered parts

	Density	Microhardness HV 1000	Indentation fracture toughness, K_{IC}	Linear shrinkage	Bending strength
	g/cm ³	GPa	MPa/m	%	4 point MPa
Densitec 13	3.14	25	3.5	approx. ~ 16	380
Densitec 15	3.17	26	4.0	approx. ~ 18	500

Typical Sintering Cycles



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