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Technical Data Sheet

3M™ Boron Nitride Powders for Industrial Applications

NSF certified in category Code HX-1

Typical Material Properties	Unit	3M™ Boron Nitride Powder						
		Typ SCP1	Typ S1-SF	Typ S1*	Typ S3	Typ S6	Typ S9	Typ S12
Color		white						
Crystalline structure		hexagonal						
Specific weight	g/cm³	2.25						
Application temperature	°C	up to 900 in air, up to 2,000 in inert atmosphere						
Specific surface area (BET)	m²/g	20	10 – 20	12 – 16	10 – 15	7 – 10	3 – 7	2 – 5
Bulk density	g/cm³	< 0.15	< 0.15	< 0.2	< 0.15	< 0.15	< 0.2	< 0.2
Particle size distribution								
d(0.1)	µm	n.a.	1	2	2	2.5	3.5	5
d(0.5)	µm	0.5**	4	7	4	6	9	12
d(0.9)	µm	0.8**	10	30	20	25	30	35
Chemical analysis								
BN	%	> 98	> 98	> 98	> 98.5	> 98.5	> 99	> 99
B_2O_3 soluble	%	< 0.2	< 0.2	< 0.1	< 0.1	< 0.08	< 0.05	< 0.05
Oxygen (O_2)	%	< 1.0	< 1.0	< 1.0	< 1.0	< 0.7	< 0.6	< 0.5
Carbon (C)	%	< 0.15	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.03
NSF registration								
Number		149468	148045	153553	153555	153556	153557	153558

Bulk density determined according to ASTM B329 / ISO 3923-2 (Scott-density), for S1-SF according to ISO 23145-2
Particle size distribution measured by laser light scattering (Mastersizer 2000, dispersion in ethanol)
* can include soft agglomerates with 50 – 100 µm
** data determined by means of SEM pictures

! Powders with different material properties available on demand

Product is manufactured and sold by 3M Technical Ceramics, Zweigniederlassung der 3M Deutschland GmbH.

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The management system has been certified according to DIN EN ISO 9001, DIN EN ISO 50001, DIN EN ISO 14001.

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