

General Properties

Boron nitride's high-temperature properties make it a preferred thin coating for multiple applications. Boron nitride paints and sprays are used to coat molten metal handling systems because they limit metal adherence and extend the life of refractory linings. Applications include coating in glass, steel and ceramic industries, high-temperature lubricant materials, release agents for the metallizing industry, protective coating in forging, molding, heat treatment, and ceramic production. Other applications include electrical insulators in sintering and hardening furnaces, glass-processing release agents, graphite protection in siliconizing, Al-ingot casting release agents, hot-forming release agents and lubrication, and casting table coating, coating for launderers, runners, and toughs.

Physical Properties

Grade	Color	Solids Content	Binder	Density [g/cm ³]	pH value	Maximum Temperatures	Liquid Phase
BN Suspension BNS37A	Gray	36–38%	Alumina	app. 1.3	3–4	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating.
BN Suspension BNS23P	White	22–24%	Polymer	app. 1.1	7	200–500 °C — organic binder decomposes; 900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating with organic binder.
BN Suspension BNS16B0	White	15–17%	Boron Oxide	app. 1.1	8	500°C — on hot metal surfaces; 900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating with inorganic binders.
BN Suspension BNS18B	White	18–19%	Bentonite	app. 1.1	8	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating with inorganic binders.
BN Suspension BNS14B	White	13.5–15.5%	Bentonite	app. 1.1	8	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating with inorganic binders.
BN Suspension BNS20B	Gray	18.5–21%	Bentonite	app. 1.1	9	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride/titanium diBoride coating with inorganic binders.
BN Paste BNP34B	White	34–35%	Bentonite	—	—	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Water-based boron nitride coating with inorganic binders.
BN Spray	White	13–17%	N / A	N/A	N/A	900 °C — in oxidizing atmosphere; 1800 °C — in inert atmosphere.	Propane/butane propellant.
Graphite Suspension GS22	Black	20–24%	—	1.11–1.13	—	450 °C — in oxidizing atmosphere; 2000 °C — in inert atmosphere.	Water-based semi-colloidal.
Graphite Paste GP30	Black	30%	—	1.17–1.19	6.5–8.5	450 °C — in oxidizing atmosphere; 2000 °C — in inert atmosphere.	Water-based semi-colloidal.

NOTE: This data shows typical values and does not represent a specification.

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SALES OFFICES

Americas

Tel: 800 458 3608
americas.sintec@kennametal.com

United Kingdom (UK)

Tel: +44 (0)1633 63 65 00
emea.sintec@kennametal.com

Europe/Middle East/Africa

Tel: +49 (0)8861 2308 0
emea.sintec@kennametal.com

Asia Pacific

Tel: 852 2572 8991
ap.sintec@kennametal.com

China

Tel: +86 21 3718 0518
ap.sintec@kennametal.com

