



Boron Nitride Coatings

Aqueous Coatings for High Temperature Protection, Lubrication and Release

CeraGlide™ Boron Nitride (BN) coatings are composed of a high purity BN powder base paired with a high-temperature bond phase. Supplied in a liquid form suitable for brushing, they can be diluted with water to spraying and dipping consistencies and applied to a variety of porous and non-porous materials including ceramics, metals, graphite and glass.

Resistant to and non-wet by most molten metals, slags and drosses, CeraGlide BN coatings can be used up to 1372°C (2500°F) in a reducing atmosphere and up to 850°C (1562°F) in an oxidizing atmosphere, and retain many of its properties such as high temperature lubricity and corrosion resistance.

New and Improved Grades

Suspension stability and effective solids dispersion are important for coating consistency and performance. A precisely engineered and high purity BN powder, a nearly neutral pH and a premium alumina binder makes for a new and robust base for CeraGlide boron nitride coating grades SF+ and 10SF+. The improved binder dispersion offers more consistent and even coating layers for better adhesion and performance. The resulting solids stability reduces settling and allows for easy mixing and tighter viscosity ranges of the coating.

With these improvements, CeraGlide BN coatings not only offer excellent performance in a broad range of demanding applications on ceramic and metal substrates, but also a better fit for automated and robotic applications or when there is extended time between uses.

CERAGLIDE SF+ A general-purpose thick coating offers premium value and flexibility of concentrated BN in aqueous phase that can be used as is, or diluted with water to desired thickness and viscosity.

CERAGLIDE 10SF+ A ready-to-use formulation for spraying, brushing or dipping, 10SF+ combines simplified set-up, efficiency and performance in automated and robotic applications, eliminating possible variation caused by dilution on site.

Specialized Grades

CeraGlide Specialized BN grades are differentiated by the type of inorganic binder used. These grades offer a range of physical properties such as hardness and adherence in more specialized applications with specific substrates.

CERAGLIDE A A high-viscosity paste with a unique aluminum phosphate binder and higher solids content for custom dilution. Offers a very strong bond with many different refractories and glass substrates.

CERAGLIDE V A thick composition with a magnesium silicate binder that dries to a harder coating, particularly useful in applications requiring additional durability such as moving parts in molten metal. Excellent for coating graphite.

PRODUCT DATA SHEET



Features/Benefits

- Ready to use, water based coatings for easy application
- Excellent parting plane and lubricity provide outstanding release properties even at high temperatures
- Non-wet by most molten metals, salts, fluxes - enables extreme resistance to molten metal corrosion and light metal drosses
- Increases corrosion resistance and lifetime of refractory, metal and graphite components and tools

Key Applications

- Hot pressing, forging, extrusion
- Coating of launders, troughs, spoons, sieves, cups
- Super-plastic and quick-plastic forging

Target Markets

- Light metal processing
- Secondary aluminum manufacturing
- Glass manufacturing

BORON NITRIDE





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CERAGLIDE™ BORON NITRIDE COATINGS

General Properties	SF+	10SF+	A	V
Carrier Liquid	Water	Water	Water	Water
Binder Phase	Alumina	Alumina	Aluminum Phosphate	Magnesium Silicate
pH	5.5 - 7.5	5.5 - 7.5	1.0 - 3.0	> 7.5
Viscosity (cps)	6,000 - 15,000	300 - 2,000	50,000-200,000	3,000-12,000
Specific Gravity (g/cc)	1.2	1	1	1
Color	White	White	White	White
Coverage, Ft ² /gallon	100 - 400	100 - 400	100 - 400	100 - 400
Shelf Life at RT, Months	12+	12+	12+	12+
Coating Composition				
Total % Solid Phase	31%	16%	55%	33%
--Use Content, BN	>70%	>60%	>70%	>90%
Use-Temperature				
Reducing / Inert	1370°C	1370°C	1370°C	1370°C
Oxidizing	850°C	850°C	850°C	850°C
The properties listed are typical values and should not be treated as product specification. Custom color tinted formulations are available upon request.				

PACKAGING GUIDELINES

For available packaging and related information, please visit our website at --

www.bn.saint-gobain.com/products/coatings

TO ORDER

To find Combat Boron Nitride coatings fit for your specific application, please contact us at BNSales@saint-gobain.com with the following information:

- base material to which the coating will be applied
- operating conditions, i.e. temperature, atmosphere, contact with other materials, etc.



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For more information regarding the unique properties of Saint-Gobain Boron Nitride and our application solutions, please consult our website at

www.bn.saint-gobain.com

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CeraGlide™ is a pending trademark of Saint-Gobain Ceramic Materials.



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