

### Aqueous Coatings for High Temperature Release

Combat® Boron Nitride coatings are entirely inorganic, composed of Boron Nitride powder and 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 graphite, metals and ceramics.

Unaffected or non-wet by most molten metals, slags and drosses, Combat Boron Nitride 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.

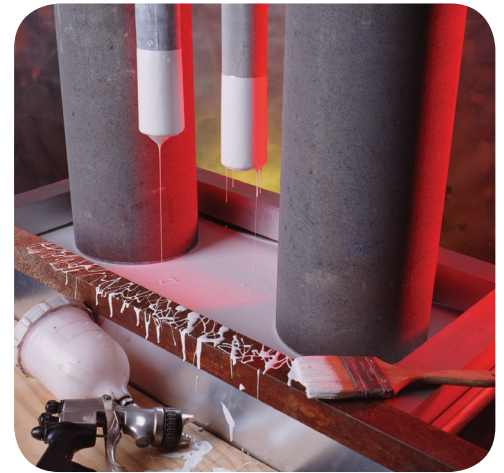
### Green/Blue Tinted Coatings

Combat Boron Nitride Coatings, also available in green/blue tint for improved visibility during application. Green/Blue tinted coatings remain colorfast at aluminum melt temperatures and can be easily applied as a first coat to white cast refractory that is visible, making it easy to detect touch-up surfaces and reapplication time.

Various grades are differentiated by the type of inorganic binder used, which allows for a range of physical properties such as hardness, adherence, useful temperature range, and ease of use for a variety of applications.

### COMBAT® BORON NITRIDE COATINGS

General Properties	SF	SFG	SFB	10SF	10SFG	10SFB
Color	White	Green	Blue	White	Green	Blue
BN (% in Solid)	>70%			>60%		
Carrier Liquid	Water			Water		
Binder Phase	Al <sub>2</sub> O <sub>3</sub>			Al <sub>2</sub> O <sub>3</sub>		
PH	6.0 - 8.0			6.0 - 8.0		
Brookfield Viscosity (cps)	15,000-60,000			500-6,000		
Specific Gravity (g/cc)	1.21			1		
Coverage (ft <sup>2</sup> /gal)	100-400			100-400		
Shelf Life at RT, Months	12+			12+		
<b>Use-Temperature</b>						
Reducing/ Inert	1370°C	1370°C	1370°C	1370°C	1370°C	1370°C
Oxidizing	850°C	850°C	850°C	850°C	850°C	850°C



### Features/Benefits

- Ready to use, water based, completely inorganic 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 resistant to molten metal corrosion and light metal drosses
- Increases corrosion resistance and lifetime of graphite and non-oxide refractory components and tools
- Green tinted coating is visible on white refractory for easy detection of reapplication

### Key Application

- 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



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BORON NITRIDE

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