



## BORON NITRIDE COATING Type RS-BNCoat

### GENERAL INFORMATION

ZRCI Boron Nitride Coating Type RS-BNCoat is a high temperature, anti-stick release agent/lubricant for glass forming, hot pressing, super-plastic forming of alloys and melting/casting of non-ferrous metals. Type RS-BNCoat forms a non-wetting, non-reacting layer with molten aluminum and magnesium and their dross. It is ideal for forming a barrier layer to protect metal, ceramic, or graphite substrates used for metal transport or casting operations. Type RS-BNCoats' high electrical resistance and high thermal conductivity makes it useful as a protective coating on electrical heating elements. It is available in a paint or as an aerosol. The aerosol allows easy application of uniform, thin layers, and the acetone/alcohol based carrier assures fast drying. Type RS-BNCoat is useful to temperatures to 1816°C (3300°F) in inert and reducing atmospheres. In vacuum atmospheres, RS-BNCoat can be used to 1400°C (2552°F) before sublimation, and in oxidizing atmospheres, its use temperature is 1093°C (2000°F).

### SUGGESTED APPLICATIONS

Release agent/lubricant for:

- Hot glass forming
- Hot pressing
- Super-plastic forming of alloys
- Melting/casting of non-ferrous metals
- Launderers & Runners
- Auto-Pour Ladles
- Troughs & Tubes
- Funnels & Spouts
- Filter Bowls
- Boxes
- Caster Tips
- Dross Press Heads

### PROPERTIES & CHARACTERISTICS

#### PAINT

Active Ingredient	BN
Maximum Use Temp. *, C(F)	
Air	1100(2012)
Vacuum	1400(2550)
Inert	1800(3300)
Fired Composition	85% BN
Liquid Carrier	Water
Binder Phase	Al <sub>2</sub> O <sub>3</sub>
Carrier, %	75
Brookfield Viscosity, cp	1050 3/60
Specific Gravity, g/cc	1.25
Color	White
Shelf Life, months	>12
Coverage, ft <sup>2</sup> /gal	400
Coating pH	2 - 4
H F R Ratings	2 - 0 - 0

#### AEROSOL

Active Ingredient	BN
Maximum Use Temp. *, C(F)	
Air	1000(1800)
Vacuum	1400(2550)
Inert	1800(3300)
Fired Composition, %	
BN	85
Magnesium Silicate	3
Base	Acetone/Alcohol
Color	White
Shelf Life, months	none
H F R Ratings	2 - 4 - 0

\* Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences.

### ZIRCAR Refractory Composites, Inc.

PO. BOX 489, FLORIDA, NY 10921-0489  
Tele: (845) 651-2200, Fax: (845) 651-1515  
e-mail: sales@zrci.com  
Home page: <http://www.zrci.com>

**Technical Data**  
Bulletin No. ZRCI-700  
Rev December 2017

---

---

# BORON NITRIDE COATING Type RS-BNCoat

---

---

## USE NOTES

**Paint:** Re-suspend if needed. Clean surfaces to be painted of oils dirt, scale etc. Apply one thin layer by brush or spray like ordinary house paint. Allow to dry at room temperature before use.

**Aerosol Spray:** Surfaces to be sprayed should be cleaned and degreased first. Shake can well before using. Hold can 150 to 300 mm (6 to 12 inches) from surface. Apply a thin, uniform coating, using even movements. Respray as needed. Use in a well-ventilated area. Acetone/Alcohol Based.

## ADVANTAGES

- Totally Non-Wetted by Molten Aluminum, Magnesium, and Their Drosses
- Acts Like Teflon® to Molten Metal
- Protects Ceramics, Metals and Graphite
- Maintenance is Reduced and Operator Satisfaction Maximized
- Applied Like House Paint or Spray Paint
- Safe, Water-Based, No VOC's

## AVAILABILITY

Item #	Description
OS10	RS-BNCoat, 1 Quart
OS11	RS-BNCoat, 1 Gallon
OS12	RS-BNCoat, 13oz Aerosol Can



**ZIRCAR Refractory Composites, Inc.**  
P.O. BOX 489, FLORIDA, NY 10921-0489  
Tele: (845) 651-2200, Fax: (845) 651-1515  
e-mail: sales@zrci.com  
Home page: <http://www.zrci.com>