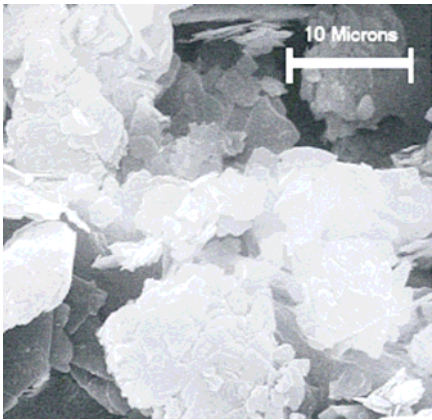


## SAM119 BORON NITRIDE COATING (Development Material)

### SAM119 BN coating

Grade SAM119 is a high BN solid content, water-based coating. It features a high-purity, fully-crystalline grade of BN, and has been formulated to have resistance to flaking and wear. High solid content allows the coating to be diluted as required.



### Typical Properties of SAM119<sup>1</sup>

Solvent	Water
Total Solids (BN & binder), wet	25.00%
Total BN Solids Content, wet	21.25%
Total BN Solids Content, dry	85.00%
Binder Type	Alumina
Type of BN	Highly Crystalline
Use Temperature	
Oxidizing Atmosphere	- 850 °C
Inert/Vacuum Atmosphere	- 1800 °C

<sup>1</sup> Actual properties may vary. Numbers represent typical data and will vary within ranges established for a particular grade. Please contact your sales representative for specifications.

### Applications and Uses

SAM119 may be used as a release agent, lubricant, or protective coating in molten metal processing, especially aluminum and other non-ferrous metals. Additional applications are in glass forming, ceramic, powder metallurgy, and other high temperature processing environments. The following are some common uses for BN coatings:

- To protect substrates such as launders, transition plates, and other refractories in the cast house
- To provide release and lubrication during metal forming processes, such as extrusion, die casting, and forging
- To provide mark-free lubrication in glass processing

*Please contact us for application notes and trial guidelines.*

### Molten Metal Dip Testing

Upon evaluation by an independent testing facility, SAM119 coating was found to be superior to a competitive grade of BN coating in the areas of metal release and refractory protection. Side-by-side performance indicated that SAM119 (Side B) demonstrated better metal release properties and better refractory protection as evidenced by the unreacted white area, than the competitive product (Side A), where refractory corrosion was predominant.



GE - Advanced Materials  
Quartz & Ceramics  
ISO9001:2000 CERTIFIED

22557 WEST LUNN ROAD  
STRONGSVILLE, OH 44149  
USA

PHONE: +1 440.878.5700  
FAX: +1 440.878.5928  
[www.advceramics.com](http://www.advceramics.com)

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