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Dental Cast Release

Convenient Finger-Pump Sprayer with a Specially Formulated Water-based Boron Nitride Paint for Melting/Casting of Dental Alloys

Dental Cast Release provides a water-based paint that can be used to apply a thin Boron Nitride (BN) layer onto typical ceramic crucibles or molds -- such as special ceramics good to 1550 C or inserts of graphite or glassy Carbon , as well as fused silica/quartz crucibles. The crucibles are generally used for vacuum melting and casting of specialty alloys such as “high fusing gold” alloys, Cobalt-Chrome, Nickel-Chrome, and other non-precious metal alloys for crowns/bridges. This new easy-to-use finger-pump sprayer allows application of BN paint onto most any surface/substrate/ crucible/mold.

Key Attributes

- Easy to see contrasting blue color
- Ready-to-Use Finger-Pump Sprayer
- Water-based, Non-Flammable, Non-Hazardous
- Anti-Stick/Easy Release - eliminates residues
- Extends crucible/mold lifetime

Ideal Use

For Easy Release of Dental Alloy Castings using Ceramic Crucibles/Molds or Graphite/Glassy-Carbon Liners

Use Notes

1. Clean surfaces to be painted of any oils, dust, scale.
2. Shake the bottle so paint is uniformly suspended.
3. Set up a cardboard piece and test spray onto it by pressing the finger-pump several times to start the spray/flow. This will also show the spray pattern.
4. Coating can be varied by the frequency and strength of pressing the trigger. The wet coating can be smoothed with a small brush, if necessary.
5. Dry the coated part until “dry-to-the-touch” and repeat Step 4 if additional coats are desired. Dry thoroughly before placing the coated part into its high-temperature environment (generally a furnace being heated up to the use-temperature for melting/casting).
6. The finger pump can be cleaned by removing it and inserting the feed tube into a glass of water and spraying until the spray becomes clear. This cleaning will prevent clogging that could hamper future coatings.



Specifications

Active Ingredient	BN
Max Use Temperature	
Air	1000 C (1832 F)
Vacuum	1400-1550 C (2552-2822 F)*
Inert	>1800 C
(>3272 F)	
Use Atmosphere	All
Fired Composition	BN + Inert Filler
Liquid Carrier	Water
Binder Phase	Proprietary
Brookfield Viscosity (cps)	85-125 @ 2/60
Specific Gravity	1.0
Color	Blue**
Shelf Life (months)	>12
Coverage (ft ² /gal)	100-400
Coating pH	7-8
H F R Ratings	1-0-0
Substrate Use	All

* Vapor pressure about 10⁻⁴Torr above 1400 C

** Blue tinted for easy visibility with <1% Cobalt Aluminate non-reactive ceramic

Safety and Handling Information

- Consult SDS before use
- For Industrial Use only
- Avoid breathing of spray/vapors

Sizes and colors

Dental Cast Release is a blue colored paint. Standard size: Sold in a kit/package of one 4-oz. finger-pump bottle along with an 8-oz. Nalgene bottle for refilling and a special brush for smoothing or direct application.

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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