

## ReleaSys™ HTX-A Boron Nitride Release Coating

### Description

Miller-Stephenson has developed a high-temperature industrial coating designed to provide an unmatched high temperature release agent utilizing fine particle hexagonal boron nitride in a nonflammable, aerosol formulation. Utilizing our advanced chemistry and next-generation binder system, ReleaSys™ HTX-A develops an ultra-durable, thin-film coating on any metallic or ceramic surface. This coating imparts a low coefficient of friction, high lubricity, and high adhesion ceramic film to surfaces. The cured coating offers exceptional release properties, even at 1000°C, and complete protection from aggressive environments. The inert and non-wetting nature of the coating make it an excellent surface coating for molds used to produce castings of light metals such as magnesium and aluminum and for coating surfaces in glass making operations. ReleaSys™ HTX-A can inhibit corrosion and chemical attack in metal forming, glass-making and sintering processes, thereby increasing die life and improving product quality. Benefits include:

- Ultra-High Performance Ceramic Coating
- Ideal for Glass Molding and Aluminum
- Exception durability and surface adhesion
- Ultra-low Odor and Rapid Dry Time
- High Temperature Stability up to 1000°C in air; 1800°C in Inert Atmospheres
- 100% Non-flammable formulation

### Applications

- Mold Release for High Temperature and Difficult to Mold Polymers and Composites
- Mold Release for Casting Metals & Glass
- Mold Dressing for Powder Metal Processing
- Surface Coating for High Temperature Surfaces
- Barrier Coating for Aggressive Environmental Processes

### Recommended Application Procedure

1. Clean surface thoroughly. Mechanical cleaning such as bead media blasting or steel wool, followed by chemical cleaning, provides the best surface for application of ReleaSys™ HTX-A. Removal of all previous contaminants is critical.
2. Invert can and shake vigorously for one minute. Apply approximately 10-12 inches away from surface and apply a light coat.

3. **Make sure to shake can frequently during use, failure to do so will affect coating thickness and final performance.**
4. Material should be applied wet and allowed to dry to a fine-white coat. Application to a cool surface is critical.
5. A second light coating is recommended to guarantee complete coverage. The second coat should not be applied until the first coat has fully dried.
  - a. **Multiple coats can be applied, however excess application can lead to transfer into your molded part**
6. Allow solvent to dry completely. Binder activation occurs upon flash-off of solvent. Molding can be performed without heat curing the coating.
7. In some configurations, improved adhesion and durability can be achieved by curing the coating.

### Heat Curing Procedure

1. To heat cure, bring the dried coating up to a maximum of 200°F and hold for 10 minutes. Cool back to room temperature.

### Physical Properties:

Primary Polymer	Discrete Ceramic particle
Appearance	White particle suspension
Odor	Slight
Specific Gravity	1.3 g/mL @ 25°C

### Safety Data Sheet (SDS) is available upon request.

**LIMITATION OF LIABILITY AND REMEDIES:** Manufacturer warrants that, at the time of shipment by the Manufacturer, this product is free from defect in material and manufacture. If the product is proved to be defective, the exclusive remedy, at Manufacturer's option, shall be refund of the purchase price or replacement of the defective product, provided written notice of the defect is given no later than one year after the date of shipment by the Manufacturer. Manufacturer shall not otherwise be liable for loss or damages whether direct, indirect, incidental or consequential, regardless of the legal theory asserted, including negligence and strict liability. **Manufacturer expressly disclaims all implied warranties, including the implied warranty of merchantability and the implied warranty of fitness for a particular purpose. There are no warranties which extend beyond the description on the face hereof.**

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