



# Product Information

[www.miller-stephenson.com](http://www.miller-stephenson.com)

## ReleaSys™ HTX30-GR High Temperature Industrial Coating

### Description

Miller-Stephenson has developed a high-temperature industrial coating designed to provide unmatched release agent / dry lubricant properties utilizing next-generation ceramic chemistry in water-based, VOC-free formulation. Our advanced chemistry and next-generation binder system, ReleaSys™ HTX30-GR develops an ultra-durable, thin-film coating on any metallic, ceramic or composite surface. This coating imparts a low coefficient of friction, high lubricity, and a chemical barrier. 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 ReleaSys™ HTX30-GR make it an excellent surface coating for molds used to produce castings of light metals such as magnesium and for coating surfaces in glass making operations. ReleaSys™ HTX30-GR can inhibit corrosion and chemical attack in metal forming, glass-making and sintering processes, thereby increasing die life and improving product quality. Benefits include:

- High Temperature Stability up to 1000°C in air; 1800°C in Inert Atmospheres
- Exception durability and surface adhesion
- Excellent Thermal conductivity
- Low coefficient of friction
- 100% VOC free; no odor
- Water-based formulation

### Applications

- Mold Release for High Temperature and Difficult to Mold Polymers and Composites
- Mold Release for Casting Metals
- Mold Dressing for Powder Metal Processing
- Surface Coating for High Temperature Surfaces
- Barrier Coating for Aggressive Environmental Processes
- Specialty Lubricant for Drawing and Working Metals
- High and Low Temperature Dry Film Lubricant

### 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™ HTX30-GR. Removal of all previous contaminates is critical.
2. **Mix product thoroughly before use and intermittent during use to maintain uniformity.**
3. Concentrate: ReleaSys™ HTX30-GR is a concentrated product which can be used as is or diluted to lower concentrations. The undiluted product is ideally applied via brush or via HVLP gun.
  - a. **Application should be of thin coats. Allowing each coat to cure completely before reapplication. Foam brushes work well.**

4. **Thick coats will cause “mud cracking” and loss of surface adhesion resulting in poor cure film properties and poor release characteristics.**
5. The concentrate product will dry at room temperature rapidly, typically taking 10-30 minutes depending on ambient temperatures. The coating then needs to be heat cured at 200-300°F for 1-1.5 hours to develop its final film properties or left for 24 hrs at room temperature.
6. Dilution: The product can be diluted 4:1 and (4 parts ReleaSys™ HTX30-GR to 1 part DI water) with DI water to decrease viscosity, aid with spraying or to decrease film build. Dilution will increase dry times at room temperature.
7. The diluted product may separate into two layers upon dilution. If this occurs the product needs to mix thoroughly and continuously during use.
  - a. Separation does not affect the performance of the product.
8. The diluted product can be applied to heated surface to decrease dry times. To reach final cure properties the dried coating must be heat cured at ≥200°F for one hour.

### Physical Properties:

Primary Polymer:.....Discrete Ceramic particle  
Appearance:.....Black particle suspension  
Odor:.....None  
VOC:.....None  
Specific Gravity:.....1.0 g/mL @ 25°C

### Shelf-Life

ReleaSys™ HTX30-GR has a shelf life of 6 months from the date of shipment.

### ReleaSys™ Product Line:

Miller-Stephenson offers a selection of high performance, semi-permanent release systems to meet your mold process needs. All variants of the ReleaSys™ Series will deliver higher productivity, lower rejection rates, and higher quality products.

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

1662-7M

The recommendation made here with and the information set forth with respect to the performance or use of our products are believed, but not warranted to be accurate. The products discussed are sold without warranty, as to fitness or performance, express or implied and upon condition that purchasers shall make their own test to determine suitability of such products for their particular purposes. Likewise, statements concerning the possible uses of our products are not intended as recommendations to use our products in the infringement of any patent.

For technical information call 800.992.2424 or 203.743.4447  
For product sales: CT 800.442.3424, CA 800.771.8161, IL 800.447.4866, Canada 800.307.2199  
[www.miller-stephenson.com](http://www.miller-stephenson.com)

Miller-Stephenson logo and ReleaSys™ are trademarks of Miller-Stephenson Chemical Company Inc