

## ReleaSys™ 8120W & 8120W-T Universal Mold Release

### Description:

ReleaSys™ 8120W is a water-based, specialty release coating designed to provide superior durability and ease of release across a broad range of adhesive and coating applications. ReleaSys™ 8120W uses a proprietary polysiloxane copolymer to generate a controlled release coating. This product is ideally suited for polyurethanes, plastics, and composite materials. Properly applied, our product develops a durable, thin-film on the mold surface with no build-up. ReleaSys™ 8120W will not interfere with post-production finishing operation. Benefits of this product include:

- Exceptional durability and surface adhesion
- Ideal for complex molds
- Fast evaporation and rapid cure time
- Clean, Non-oily, Non-migrating

### Release Agent Applications:

ReleaSys™ 8120W is formulated to provide unmatched utility in compression, injection and transfer molding with the following materials:

- |                        |                  |
|------------------------|------------------|
| • Organic Polymer      | • Thermoplastics |
| • Thermosetting resins | • Elastomers     |
| • Fluoroelastomers     | • EPDM           |
| • Urethanes            | • Epoxy          |
| • Neoprene             | • Melamine       |

### Recommended Application Procedure:

1. Clean mold surface thoroughly. Mechanical cleaning such as bead media blasting, followed by chemical cleaning, provides the best surface for application. Removal of all previous mold release agent and contamination is critical.
2. ReleaSys™ 8120W can be applied by hand wiping application or spray application to a room temperature or heated mold surface.
3. ReleaSys™ 8120W can be applied by wiping or by any spray equipment that can produce fine atomization and deposit a uniform, thin film. Apply lightly to a warmed mold approximately 8-12 inches from the surface.

**Note:** Application of light coats is critical. If you experience any buildup, buff the surface and apply one follow-up light coat.

4. **ReleaSys™ 8120W-T is special thickened version ideal for dip and brush applications, providing for consistent film thickness for these application methods**
5. **Initial Application Cure Method:** Cure times vary with application thickness and temperature. The curing process is dramatically accelerated with the application of any heating above 50 °C. Temperatures below 50°C are non-ideal.
  - a. Cure times at 50 - 70 °C require approximately 25 - 35 minutes
  - b. Cure times at 75 - 100 °C approximately 20 - 25 minutes
  - c. Cure time above 100 °C are approximately 15 - 25 minutes

6. The initial cure is critical, failure to properly cure the coating will result in dramatically reduce coating durability and performance. It is recommended to perform two coats on start-up after cleaning to ensure complete coverage.

**NOTE: If heat curing is not possible, allow the product to dry completely before use. This will ensure proper formation of the release film. While heat curing develops the best performance, air drying will still provide release.**

7. Multiple coats can be applied however this is not normally necessary. If multiple coats are applied, allow 15 minutes between coats.

### Reapplication:

1. When release becomes hesitant, immediately reapply one coat of ReleaSys™ 8120W in the same manner as described previously. Spot touch-ups can also be done on known high wear or geometrically strained areas. Light buffing can be done prior to reapplication to clear the surface of contaminants.

### Physical Properties:

Primary Polymer:.....Reactive Polysiloxane  
 Appearance:.....White Emulsion  
 Specific Gravity:.....1.01 g/mL @ 25°C  
 Flash Point:.....None  
 VOC:.....None  
 Odor:.....None

### Storage and Handling:

ReleaSys™ 8120W should be stored in a well-ventilated area which is cool and dry. Do not expose to freezing temperatures. Prior to use, container should be lightly agitated.

ReleaSys™ 8120W should not be used at temperatures above 310 °C or near open flames. Chemical breakdown will occur which will result in the generation of toxic fumes. When spraying, avoid inhalation of mist and exposure to skin. Always wash hands after handling.

### Shelf-Life

ReleaSys™ 8120W has a shelf life of 12 months from the date of shipment.

### ReleaSys™ Product Line:

Miller-Stephenson's 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.

**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.**