

ReleaSys™ 8200 Series Semi-Permanent Mold Release Agent

Description:

ReleaSys™ 8200 Series are water-based, semi-permanent mold release agents designed to provide reliable, consistent release across a broad range of moldable substrates. ReleaSys™ 8200 utilizes a proprietary fluoropolymer resin and adhesion promoters, to develop a robust thin-film coating that is highly durable and resistant to even the most aggressive molding application. ReleaSys™ 8200 is ideal for use with epoxies, plastics, and composites as well as silicone elastomers. Properly applied, our product develops a durable, thin-film on the mold surface with minimal mold build-up. ReleaSys™ 8200 will not interfere with post-production finishing operation. Benefits of this product include:

- Exceptional release agent durability
- 100% Silicone, Wax and Oil-Free
- Ultra thin-film Fluoropolymer resin coating
- Ideal for plastic, epoxy, composite, & elastomer/rubber
- Improves quality and consistency of molded parts
- Minimizes mold build-up and fouling
- Paintable, Bondage surface – No transfer

Release Agent Applications:

ReleaSys™ 8200 series is formulated to provide unmatched utility and economy in compression and transfer molding, particularly with Rubber to Metal bonding. ReleaSys™ 8200 is compatible with the following materials:

- | | |
|----------------------------|--------------------------------|
| • Plastics | • Elastomers |
| • Fluoroelastomers | • Fluorosilicones |
| • Acrylics | • Epoxy |
| • Nitrile | • SBR |
| • Chlorinated Polyethylene | • Natural and Synthetic Rubber |

Recommended Application Procedure:

1. Clean mold surface thoroughly. Mechanical cleaning such as plastic 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™ 8200 can be applied by any spray equipment that can produce fine atomization or via cloth application. Apply lightly to a hot mold approximately 8-12 inches from the surface.
3. **Heated Mold:** Allow ReleaSys™ 8200 to cure for approximately 1 - 2 minutes at normal operating temperatures.

Multiple light coats can be applied; however, this is not normally necessary.
4. **Unheated Mold Surface:** Apply a light coat either by spray or microfiber cloth. Allow to dry completely before use (typically 25-40 minutes). The coating is now ready for use. Heat cycling the mold will help increase the coating durability and final performance.

5. Overapplication can result in tacky, poor releasing coatings. Application of thin, light coatings are critical. If overapplication is detected clean the mold thoroughly and correct application intensity. If problems persist, contact Miller-Stephenson Technical Service for corrective action.

Reapplication:

1. When release becomes hesitant, immediately reapply one coat of ReleaSys™ 8200 in the same manner as described previously. Spot touch-ups can also be done on known high wear or geometrically strained areas.

Melt Fusion Process:

Adhesion of the coating can be improved by melting the deposited solids. When melt-coating ReleaSys™ Fluoropolymer dispersions, provide adequate ventilation. Heat-curing the coating is completed as follows:

1. Mechanical clean the surface with media blasting followed by wiping with a high purity solvent or water-based detergent mixture. Ensure the surface is clean, dry and contaminate free
2. Warm surface to between 160 – 220 °F and spray apply an even, uniform coating of the ReleaSys™ 8200 series. Avoid heavy application. Typically, 2 coats are sufficient for complete coverage.
3. Ramp mold temperature to between 644 – 680 °F (340-360 °C) and hold for 5 – 10 minutes. Measure the surface temperature directly with a thermocouple, the time starts once you achieve the 644 °F surface temperature.
4. You may observe a change in coating appearance, initially from an opaque white to a darker, translucent look and then appear clear and wet.
5. Cool back down to room temperature. If a white residue is left on the metal surface, buff with a soft cloth to remove.

Physical Properties:

Primary Polymer	Fluoropolymer
Appearance	Light Yellow Emulsion
Odor	None
Specific Gravity	1.0 g/mL @ 25°C
Flash Point	None

Storage and Handling:

ReleaSys™ 8200 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; avoid high shear/high rpm mixing.

ReleaSys™ 8200 should not be used at temperatures above 250 °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. **Safety Data Sheets (SDS) are available upon request.**



Product Information

www.miller-stephenson.com

Shelf-Life

ReleaSys™ 8200 has a shelf life of 12 months from the date of shipment.

ReleaSys™ Product Line:

Miller-Stephenson's offers a selection of high performance water-based, 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.**

1592-9P