

ReleaSys™ 9900 Semi-Permanent Mold Release Agent

Description:

ReleaSys™ 9900 is a high-performance, high cross-linking water-based, semi-permanent mold release system. Utilization of a proprietary polymeric backbone, this coating binds tenaciously to mold surfaces providing a durable coating with excellent surface slip and ease of release. Properly applied, our product develops a long lasting thin-film on the mold surface with minimal mold build-up and absolutely no transfer. ReleaSys™ 9900 will not interfere with post-production finishing operation. Benefits of this product include:

- Ideal for highly-polished, complex molds
- Excels at release of Rubbers, Urethane, Plastics & Composite
- Exceptional surface adhesion and durability
- Multiple Release and High Lubricity
- Clean, Non-oily, Non-migrating
- Improves quality and consistency of molded parts
- Excellent replacement for PFAS-based release agents

Release Agent Applications:

ReleaSys™ 9900 is formulated to provide unmatched utility in compression, injection and transfer molding with the following materials:

- Organic Polymer
- Thermo-Resins
- Composites/FRP
- Acrylics
- Urethanes
- Thermoplastics
- Fiberglass
- SMC
- Epoxy
- Ceramics

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 is critical.
2. ReleaSys™ 9900 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.

Note: Miller-Stephenson recommends for optimal performance the ReleaSys™ MOLD SEALER be used to seal mold surfaces prior to application of ReleaSys™ 9900.

3. Initial Application to a freshly cleaned mold

- a. Heat mold to a minimum temperature of 60 °C.
- b. Apply a light, even coat of ReleaSys™ 9900 with either a lint-free cloth or fine atomization from a HVLP gun.
- c. It is typically not necessary to apply more than 1 coat. However if needed, insure each coat is applied uniformly and lightly.
- d. Heat cure following the program below
 - i. Cure times at 60 - 75 °C require approximately 25 - 35 minutes
 - ii. Cure times at 75 - 100 °C approximately 20 - 25 minutes
 - iii. Cure time >100 °C approximately 15-20 minutes

Reapplication / Mold Touch-ups:

1. When release becomes hesitant, immediately reapply one coat of ReleaSys™ 9900 in the same manner as described previously.
2. No further curing is required. Spot touch-ups can also be done on known high wear or geometrically strained areas.
3. **If needed, ReleaSys™ 9900 can be diluted with DI water to reduce application amount and lower build-up.**

Physical Properties:

Primary Polymer	Crosslinking Resin
Appearance	White Emulsion
Odor	None
Specific Gravity	1.0 g/mL @ 25°C
Flash Point	None
VOC (g / L)	None

Storage and Handling:

ReleaSys™ 9900 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™ 9900 should not be used at temperatures above 350 °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 Sheet (SDS) is available upon request**

Shelf-Life

ReleaSys™ 9900 has a shelf life of 12 months from the date of shipment.



Product Information

www.miller-stephenson.com

ReleaSys™ Product Line:

Miller-Stephenson 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.**

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