

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
- Exceptional surface adhesion and durability
- Clean, Non-oily, Non-migrating
- Improves quality and consistency of molded parts
- Minimizes mold buildup and fouling

Release Agent Applications:

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

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| • Organic Polymer | • Thermoplastics |
| • Thermo-Resins | • Elastomers |
| • Fluoroelastomers | • EPDM |
| • Acrylics | • Epoxy |
| • Urethanes | • Fiberglass |

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.

3. 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 90 °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 approximately 15 - 25 minutes

4. 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.
5. Multiple light coats can be applied however this is not normally necessary. If multiple coats are applied, allow 15 minutes between coats and then heat to above 100 °C for 20 minutes.

Reapplication:

1. When release becomes hesitant, immediately reapply one coat of ReleaSys™ 9900 in the same manner as described previously. Cure time is only 1-2 minutes when applied to a heated mold. Spot touch-ups can also be done on known high wear or geometrically strained areas.

Physical Properties:

Primary Polymer:.....Crosslinking Polysiloxane
Appearance:.....White Emulsion
Odor:.....None
Specific Gravity:.....1.0 g/mL @ 25°C
Flash Point:.....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 450 °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™ 9900 has a shelf life of 12 months from the date of shipment.

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.

NOTE:

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.

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