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Product Information

www.miller-stephenson.com

ReleaSys™ 9700S
High Performance Industrial Coating

Description:

ReleaSys™ 9700S is a solvent-based, semi-permanent mold release agent designed to provide superior durability and ease of release across a broad range of moldable substrates. ReleaSys™ 9700S uses a proprietary siloxane copolymer and resin to generate a hard, glass-like coating yielding ultra-low coefficient of friction and multiple releases from a single application. ReleaSys™ 9700S is effective at temperature from room temperature up to 400 °C. Utilizing our next-generation polymer chemistry, Miller-Stephenson has developed a release agent which provides unmatched durability, surface adhesion, and absolutely no transfer. A truly revolutionary product, ReleaSys™ 9700S performs in the most demanding operations, offering unmatched reapplication intervals, part quality, and ease of release. ReleaSys™ 9700S is used for release of components in Automotive, Marine, and Aerospace. ReleaSys™ 9700S will not interfere with post-production finishing operation. Benefits of this product include:

- Miller-Stephenson's most advanced thin-film chemistry
- Exceptional durability and surface adhesion
- Ideal for complex molds
- Fast evaporation and Low-Temp cure time
- Stable up to 400°C
- Clean, Non-oily, Non-migrating, Non-conductive

Release Agent Applications:

ReleaSys™ 9700 is formulated to provide unmatched utility in compression, injection and transfer molding with the following materials:

- Organic Polymer
- Thermosetting resins
- Fluoroelastomers
- Urethanes
- Neoprene
- Thermoplastics
- Elastomers
- EPDM
- Epoxy
- 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™ 9700S can be applied by hand wiping application or spray application.

3. **Hand wiping**: Use the product at full concentration and apply to a microfiber cloth. Lightly apply a single coat to ideally a heated mold surface. Do not overlap your passes over the mold. Work quickly to coat the mold, apply only the lightest of pressure to the surface.

4. If applying to an unheated surface, allow product to dry completely and then heat cycle the mold surface to cure. The dried coating can also be heated to minimum 160 °F for 15-20 minutes to cure.

5. **1-3 coats can be applied prior to molding with a final curing for 20 minutes at minimum 160 °F.**

6. If heavy application is observed after curing, lightly buff the surface to remove excess film build-up.

7. **Spray application:** Apply a single light coat, approximately 8-10 inches from the surface. Light application is critical to developing a smooth, lubricous finish. Make sure the coat is applied to the surface wet and allowed to dry on the mold.

   Note: Generally a single pass over the mold surface is all that is needed. Heavy application will greatly limit product performance.

8. Allow ReleaSys™ 9700S to dry completely, then cure for approximately 20-25 minutes at normal operating temperatures (minimum 160 °F). Multiple light coats can be applied, but is not usually necessary.

   Note: Heating to >212°F will greatly enhance durability, abrasion resistance, and surface lubricity. Cure time is greatly reduced (10-15 minutes).

9. Application to a pre-heated (>100 °C) mold surface is not recommended. If application to a heated surface is require Miller-Stephenson recommends their ReleaSys™ 8800

10. Overapplication can result in lower release efficiency and sticking. General molding requires no more than two coats to achieve optimal performance. If overapplication is detected, lightly buff the surface with a microfiber cloth to remove unadhered material.

Reapplication:

1. When release becomes hesitant, immediately reapply one coat of ReleaSys™ 9700S 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 contaminates.

Physical Properties:

Primary Polymer:…...Reactive Crosslinking Resins
Appearance:……...Light Straw Yellow
Odor:……Mild
Specific Gravity:……0.8 g/mL @ 25°C
Flash Point……80.6 °F

Storage and Handling:

ReleaSys™ 9700S 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™ 9700S should not be used at temperatures above 475 °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™ 9700S 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.

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