



Product Information

www.miller-stephenson.com

ReleaSys™ STC Static Control Coating

Description:

ReleaSys™ STC is a high performance, water-based, coating designed to provide discharge of static and latent charges. Designed specifically for the plastic and rotational molding industries, Miller-Stephenson has developed a proprietary formulation which provides exceptional charge dissipation, resin flow-out, and enhance mold cleanliness. Our coating is optimized for the plastic and rotational molder, providing a zero-VOC, non-flammable and non-hazardous static control coating which can be integrated directly into your molding process without any modification. ReleaSys™ STC is ideally paired with our Rotational Molding Release Agent ReleaSys™ RM for optimal benefits and performance. Benefits of this product include:

- Immediate removal of static charge
- Easy to use water-based formulation
- Enhanced resin flow

Release Agent Applications:

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

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|------------------------|-------------------|
| • Organic Polymer | • LLDPE |
| • Thermosetting resins | • LDPE |
| • HDPE, XLPE | • Polypropylene |
| • Urethanes | • Nylon/Polyamide |
| • Neoprene | • Polycarbonate |

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™ STC can be applied by hand wiping application or spray application to a room temperature or heated mold surface.
3. ReleaSys™ STC is a concentrate product and be used as is or diluted with DI water to a final working concentration.
4. **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.
5. If applying to a heated surface (> 140 °F), allow the product to dry for 1-2 minutes. If applying to an unheated a surface, allow product to dry
6. If heavy application is observed after curing, lightly buff the surface to remove excess film build-up. If heavy application is observed frequently dilution with DI water is advised
7. **Spray application:** Apply a single light coat, approximately 8-10 inches from the surface. Be sure to make even, light passes of over the mold surface

8. Allow ReleaSys™ STC to dry completely, then cure for approximately 10-15 minutes. Multiple light coats can be applied but is not usually necessary.

Note: If applying to a heated mold surface allow only 1 -2 minutes to dry.

9. 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™ STC 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:.....Proprietary Resins
Appearance:.....White Emulsion
Specific Gravity:.....1.01 g/mL @ 25°C
Flash Point:.....None
VOC:.....None
Odor:.....None

Storage and Handling:

ReleaSys™ STC 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™ STC 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.

Shelf-Life

ReleaSys™ STC 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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