

ReleaSys™ DF-3R DryFilm Mold Release Agent

Description:

ReleaSys™ DF-3R is a non-flammable, solvent-based, dry film mold release agent designed to provide superior surface adhesion and wear resistance. Miller-Stephenson's exclusive surface activation chemistry and fluoropolymer resins allow for unmatched durability, maximal releases per application, and zero transfer. ReleaSys™ DF-3R is ideally suited for epoxy, composite, and rubber applications. This product contains zero chlorinated or hydrocarbon solvents, making the product safe for use on rubber and plastic substrates without fear of degradation or surface marring. Our proprietary low VOC, fast drying carrier fluids allows for easy application of thin-films via spray or dip applications methods. ReleaSys™ DF-3R is particularly effective for cold molding operations which require a dry film release agent. ReleaSys™ DF-3R is a very forgiving system providing release of nearly any substrate off any molding surface. ReleaSys™ DF-3R will not interfere with post-production finishing operation. ReleaSys™ DF-3R is low-global warming alternative to the MS-143XD. Benefits of this product include:

- PTFE Dry Film Release System
- Surface Activation Technology
- Unmatched surface adhesion and durability
- Safe for direct application to Rubbers and Plastics
- 100% non-flammable, low global warming
- Zero chlorinated or HFC solvents
- Non-Silicone, Non-Wax, Non-Oil

Release Agent Applications:

Our specialized chemistry can be used to release the following materials:

- Plastics
- Resins
- Acrylics
- Urethanes
- Nylons
- Rubbers
- Phenolics
- Polycarbonates
- Polystyrene
- Elastomers

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. Lightly agitate ReleaSys™ DF-3R prior to and during use to disperse settled material. Apply approximately 6-8 inches away from a non-heated mold surface and apply a light coat of ReleaSys™ DF-3R. NOTE: Material will apply wet and transparent but will dry to a fine-white coat.

3. Allow solvent to dry completely before molding any parts.

4. If overapplication is suspect, the excess material can be removed by gentle wipe the surface with a non-abrasion soft cloth

Reapplication:

1. When release becomes hesitant, reapply one coat of ReleaSys™ DF-3R in the same manner as described previously.

Fused Coatings Procedure (Optional)

1. After applying the release agent, heat the surface to 581°F - 600°F. Measure the surface temperature directly with a thermocouple.
2. A change in coating appearance from an opaque white to a darker, translucent will occur. Maintain the temperature of the coated surface for 5 to 10 minutes.
3. If a white residue is left on the metal surface, buff with a soft cloth. When the coating is properly fused, it is extremely durable.

Physical Properties:

Primary Polymer	Fluoropolymer
Appearance	White Dispersion
Odor	Alcohol
Specific Gravity	1.36 g/mL @ 25°C
Flash Point	None
VOC Content	377.95 g/l

Storage and Handling:

ReleaSys™ DF-3R 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™ DF-3R 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.

Shelf-Life

ReleaSys™ DF-3R has a shelf life of 12 months from the date of shipment.

LIMITATION OF LIABILITY AND REMEDIES: Manufacturer warrants that, at the time of sale 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 210 days after sale 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.