



Product Information

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TriboSys™ MDF DryFilm Medical Coating

Description:

TriboSys™ MDF is a solvent-based, dry film coating designed to impart ultra-low coefficient of friction, high lubricity, anti-stick, and corrosion resistance to medical devices and tools. This coating utilizes a proprietary fluoropolymer resin system designed to generate a highly durable, abrasion resistant, and chemically inert thin-film coating on the applied surface. TriboSys™ MDF is high temperature and autoclave stable. This coating imparts very low surface energy, greatly reducing or eliminating build-up and fouling. Benefits of this product include:

- Exceptional durability and abrasion resistance
- Ultra-low coefficient of friction; High Lubricity
- Minimization of “slip-stick” issues
- Chemically Inert; Autoclave stable
- Clean, Non-oily, Non-migrating
- Eliminates build-up and fouling

Applications:

TriboSys™ MDF is formulated to provide unmatched utility and performance on numerous medical device and tool applications which require a dry film, highly lubricious, and anti-fouling surface coating.

Surface Preparation

1. **Surface preparation** is important for all application methods. All surfaces should be clean and dry before TriboSys™ MDF dispersion is applied. Controlling surface roughness improves coverage, especially in air-dried applications; a smooth surface can improve results.

Application Methods:

Mix product thoroughly prior and continuously during use.

1. **Dipping:** Dipping is useful for coating small devices, tips, and scalpel blades. Coatings levels are determined by concentration of solids, rate of withdrawal, and number of applications. A single application is typically sufficient.
2. **Brush:** This method is especially useful in coating continuous surfaces such as rods, tubes, or flat sheets. In addition, wiping and brushing are ideal for coating specific areas of a larger part.
3. **Spraying:** Spray equipment which provides a fine mist and ensure product is applied “wet”. Proper air pressure and spray distance is critical for correct application of this product.

Melt-Coating for Improved Adhesion:

Adhesion of the coating can be improved by melting the deposited solids. After TriboSys™ MDF is applied and the carrier is flashed off, the surface can be heated to fuse the coating. The temperature for heat-curing the coating is 305–310°C (581–590°F). When melt-coating TriboSys™ MDF dispersion, provide adequate ventilation. Heat-curing the coating is completed as follows:

1. Measure the surface temperature directly with a thermocouple. You may observe a change in coating appearance, which may alter initially from an opaque white to a darker, translucent look and then appear clear and wet.
2. Maintain the temperature of the coated surfaces (not the temperature of the ambient air) at the correct temperature for 5–10 minutes.
3. If a white residue is left on the metal surface, buff with a soft cloth.

Physical Properties:

Primary Polymer:.....Fluoropolymer Resin
Appearance:.....Opaque Dispersion
Odor:.....None
Specific Gravity:.....1.1 g/mL @ 25°C
Flash Point:.....None
VOC:.....None

Storage and Handling:

TriboSys™ MDF should be stored in a well-ventilated area which is cool and dry. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

TriboSys™ MDF 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

TriboSys™ MDF has an indefinite shelf life in unopened containers.

Safety Data Sheet (SDS) is available upon request.

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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For further technical information call 800.992.2424 or 203.743.4447

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