



Duraglide™ XF Dry Lubricant

Product Information

Duraglide™ Dry Lubricant is a medical grade, ISO 10993* tested Polytetrafluoroethylene (PTFE) lubricant coating. *Duraglide* Dry Lubricant coatings impart ultra-low surface friction and minimize device actuation problems caused by “stacked tolerances” in low-speed, light-load medical device assemblies. *Duraglide* uses a volatile carrier fluid that quickly deposits a thin, uniform, dry, lubricating PTFE film on any surface geometry. *Duraglide* is suitable for use as-applied, or coated parts may subsequently be thermally treated for improved PTFE adhesion and longer service life.

Duraglide Dry Lubricant offers important money saving benefits:

- ISO 10993* tested and certified
- Non-flammable; fast-drying
- Non migrating; no silicone
- Minimal solvent odor
- Factory calibrated PTFE; consistent coating results
- Imparts a low surface coefficient of friction of 0.06
- Simple equipment requirements for high-volume part treatment
- Carrier fluid hostile to bioburden issues
- Compatible with ETO and radiation sterilization processes
- Excellent compatibility with metals and plastics



The aerosol packaged *Duraglide* Dry Lubricant Spray is part of a family of *Duraglide* Dry Lubricant options from a few ounces up to 55 gallon drums.

Contact *MicroCare* for details.

Physical & Chemical Properties

Carrier Odor	Slight Ethereal
Coating Odor	None
Coating Coefficient of Friction	0.06
ISO 10993 Tested and Certified	Yes*
Solubility in Water	Slight
% Volatile by Weight (Carrier)	100
% Solids by Weight (Typical)	0.5% - 10.0%
PTFE Particle Size	
Average Bulk	1-15 (microns)
Average Mean	3.7 (microns)
Carrier Evaporation Rate (Ether = 1)	>1
Flash Point,	
Closed Cup (ASTM D 93)	Not Flammable
Open Cup (ASTM D 1320-86)	Not Flammable

* Contact MicroCare Medical for specifics regarding ISO 10993 certification.

Packaging

Liter ¹ (Sample) - 1 L 2.5 Lb / 1.13 kg	MCC-XF020L
Glass Liter ² (Sample) - 1 L 2.5 Lb / 1.13 kg	MCC-XF020GL
Steel Gallon ¹ - 1 Gal / 3.79 L 10 Lb / 4.54 kg	MCC-XF020G
Steel Pail ¹ - 5 Gal / 18.9 L 50 Lb / 22.68 kg	MCC-XF020P
Steel Drum ¹ - 55 Gal / 208 L 500 Lb / 226.8 kg	MCC-XF020D
Aerosol ¹ - 14 oz (397 g)	MCC-DGF14A
Recycle	

Note: Products sold by weight, not volume.
One-gallon and smaller sample containers are available upon request.

Why is Duraglide called a “dry lubricant” when it is applied as a liquid?

Duraglide consists of PTFE particles dispersed in a fast-drying liquid carrier. When applied by dipping, spraying or brushing, the liquid carrier quickly evaporates (typically in seconds) and the treated parts are coated with an oil-free, PTFE lubricant that is dry to the touch and non-migrating.

Application Methods

All surfaces should be clean and dry prior to application. Normal precautions (safety glasses, etc.) should be used when moving, dispensing, and using *Duraglide* Dry Lubricant.

Application methods include dipping, wiping, brushing or aerosol sprays. A single application is adequate for most uses.

The most cost-effective dipping process uses a single-ump, vapor degreaser style dipping machine engineered for use with *Duraglide*. This machine puts the carrier fluid into a low-temperature “rolling boil” to insure the PTFE particles remain in suspension without settling. It is a highly reliable means of coating parts while reducing evaporative losses of carrier fluid. Contact *MicroCare* for more details.

Heat Treatment

Heat treatment is not required, but may be used to enhance cosmetics and durability by melting the coating onto the substrate. The process is simple, and involves heating the coated part surface to 305-310°C (581-590°F). Maintain the surface temperature of the coated part (not the temperature of the ambient air) at the recommended temperatures for 5 - 10 minutes. The process typically changes the coating appearance from opaque white to translucent and ultimately appears clear and wet. If a white residue remains, buff with a soft cloth after cooling. No further treatment is required.

Environmental

All *Duraglide* formulas are accepted by the U.S. Environmental Protection Agency (US EPA) under the Significant New Alternatives Policy (SNAP) program. Contact *MicroCare* for details related to EU REACH compliance requirements.

Duraglide Dry Lubricant formulas are not classified as Hazardous Air Pollutants (HAP) and are not subject to NESHAP regulation. None are SARA Title III Section 313 listed, and none are subject to SARA Title III (EPCRA) reporting requirements.

Biocompatibility

Duraglide Dry Lubricant has been successfully tested to appropriate ISO 10993* protocols. *Duraglide* is not sold for use on permanently implantable devices of any kind. Contact *MicroCare* for full details.



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