

**LOWEST COST**

# **Dyna-Blue<sup>®</sup>**

**Heavy Duty Cable Lubricant**



**With Clingability**



- Clean-Easy to use
- Stays slippery-  
Won't dry out
- Lower cost

- Temperature stable-  
No waste
- Safe-Use with most cables
- UL listed

# Dyna-Blue® Cable Lubricant

Dyna-Blue® Lubricant is a clean, slow-drying, and easy to apply gel lubricant. It is a thick gel with “clingability” for easy handling and application. Dyna-Blue® combines effectiveness with economy. It is a good lubricant for everyday use in general electrical applications.

Dyna-Blue® Lubricant is harmless to humans, environmentally safe, compatible with cable jacket materials and exceptionally easy to work with.

Dyna-Blue® is UL listed.

Package Size	Dyna-Blue® Product Number
55-gallon drum (208 Liter)	<b>D-Drum</b>
5-gallon pail (18.9 Liter)	<b>D-640</b>
1-gallon pail (3.78 Liter) 4/case	<b>D-128</b>
1-quart squeeze bottle (.95 Liter) 12/case	<b>D-35</b>

## Specifications

- Lubricity:** PVC or XLP-jacketed cable on PVC conduit at 200 lbs/ft (2.9 kN/m) normal pressure; coefficient of dynamic friction <.15  
PVC or XLP-jacketed cable on EMT conduit at 200 lbs/ft (2.9 kN/m) normal pressure; coefficient of dynamic friction <.15
- Percent Non-Volatile Solids:** 3.5%
- Appearance:** Thick, light-blue gel material
- Wax, Grease and Silicone Content:** None
- Temperature Use Range:** 20°F - 140°F (-5°C - 60°C)
- pH:** 6.5 to 8.5
- Cable Compatibility:** Passes IEEE 1210 physical and electrical testing on a wide variety of cable materials.
- Polyethylene Stress Cracking:** No stress cracking on LDPE cable jacket when tested by ASTM D1693.
- Cling Factor:** 12 inches (30 cm) of a 1 inch (2.5 cm) diameter cable will hold at least 75 grams of lubricant for one minute when held vertically (at 70°F/20°C)
- Temperature Stability:** No phase-out after five freeze/thaw cycles or 24-hour exposure at 120°F (50°C).
- Toxicity:** Non-toxic and non-sensitizing. Industrial use only
- Clean-up:** Complete cleanup possible with water.
- Flammability:** Lubricant has no flash point and dried residue is non-flammable.

To view technical information on our website, go to:

Usage information: [www.polywater.com/lubeinfo.asp](http://www.polywater.com/lubeinfo.asp)

MSDS: [www.polywater.com/dbmsds.html](http://www.polywater.com/dbmsds.html)

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## ***New Concentrated Lubricant Technology for Pulling or Pushing Wire and Cable***



Polywater® SPY Spray Lubricant offers an innovative approach to cable lubrication. The concentrated lubricant reduces pulling tension with only a thin coating. Use less with no need to “glop” on pasty wax lubricants. Just spray or wipe to coat the cable jacket. Quick and easy lubrication with no mess.

- **Easy Spray or Wipe Application**
- **Lubricates With a Thin Film**
- **Works Even When Dry**
- **Non-Staining - Easy Clean-Up**
- **Compatible with Cable Jackets\***
- **Convenient Application Options**

# Usage Recommendations

**Polywater® SPY Lubricant works on all types of jobs.  
Lubricate cable or conduit using one of the application options.**



## Pre-Saturated Towels -- Catalog #SPY-D20

This lightweight and handy package fits easily into tool bags. Use the lubricant-saturated towels to coat the wires as they are pulled. The SPY-D20 pop-up package contains 20 tough, non-tearing towels. A neat way to apply lubricant for runs up to several hundred feet.



## Refillable Quart Trigger Sprayer -- Catalog #SPY-35LR

For small conduits, the trigger sprayer is a good way to apply the SPY Lubricant. The SPY-35LR quart bottle comes with an industrial-quality, high-volume spray trigger head. For short runs, you can even eliminate fishing by spraying Polywater® SPY and simply pushing the cables. The spray trigger package is reusable and can be refilled from gallon jugs.



## Industrial Sprayer -- Catalog #IS-3

For larger installations, liquid Polywater® SPY Lubricant can be applied from a manually pressurized commercial sprayer. Polywater's Industrial Sprayer (IS-3) sprays up to 1/2 gallon per minute. This corrosion-resistant sprayer has a 3-gallon capacity poly container, an 18-inch curved brass extension, a 10-foot flexible heavy-duty hose, and a brass fan-spray nozzle.

## Polywater® SPY Spray Lubricant Ordering Information

Part #	Winter Grade Part #	Description	Case Quantity
SPY-D20	WSPY-D20	20-Count Towelette Dispenser	12/Case
SPY-35LR	WSPY-35LR	1-Quart (.95 liter) Spray Bottle	12/Case
SPY-128	WSPY-128	1-Gallon (3.8 liters) Jug	4/Case
SPY-640	WSPY-640	5-Gallon (18.9 liters) Pail	1/Each
IS-3	IS-3	Industrial Sprayer	1/Each
PB-5	PB-5	Pump-in-a-Bucket	1/Each

\* See <http://www.polywater.com/lubeinfo.asp> for specific compatibility recommendations.

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Makers of Polywater® J and Dyna-Blue® Cable Lubricants  
and Pull-Planner™ 2000 Software

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# Polywater® *Prelube*

**Cable Blowing Lubricants for  
Air-Assisted Installation of Fiber Cable**

**Lower Friction and Increase Blowing Distance**



*Prelube*  
**2 0 0 0**<sup>TM</sup>  
*for blowing conventional fiber  
optic cable*

Easy to Apply

Low Overall Cost

Proven, Effective Formula

*Prelube*  
**5 0 0 0**<sup>TM</sup>  
*for blowing fiber optic microcables*

Thinner Viscosity

Field Developed & Tested

New, More Concentrated Formula



Polywater  
**Prelube**

**2 0 0 0™**

*for blowing conventional fiber optic cable*

Polywater® Prelube 2000™ reduces frictional drag during the blowing of outside plant cable into duct. It increases the length of cable that can be blown in a single shot. Prelube 2000™ can also be used to blow in the hollow microtubes intended to hold future microcables. Over the last decade, Prelube 2000™ has been proven in the blowing of tens of thousands of kilometers of cable in over 20 countries on a variety of cable blowing machines.

### Features

- Polywater® Prelube 2000™ has proven superior to paraffin oils and cable pulling lubricants for cable blowing. The use of this lubricant results in longer installation distances.
- Polywater® Prelube 2000™ is recommended by most blowing equipment manufacturers. It increases installation distance on all types of machines.
- Polywater® Prelube 2000™ is more economical than prelubricated duct.
- Polywater® Prelube 2000™ is compatible with common fiber optic cable jacket.

### Application

A properly installed duct system with pressure-tight duct splices is an absolute necessity for efficient cable blowing. Follow the equipment manufacturer's instructions. The duct must be clean, dry, and mandral tested. Clean the duct by blowing a tight-fitting foam sponge through the duct with high pressure. If excess water or dirt comes from the duct, repeat the process. Prelube 2000™ is effective at a coating thickness of 0.5 mg/cm<sup>2</sup>.

For smoothwall duct and high air speed machines (no missile), squeeze the recommended amount of Prelube 2000™ Lubricant from the table below into the duct. Spread the lubricant by blowing a foam carrier through the duct. The quart squeeze bottle (Cat. # P-35) is a good package for this type of application.

Duct Size	Lubricant Quantity	
	per 1,000 Feet	per Kilometer
1 inch (2.5 cm)	3 fl. oz.	300 ml
1.25 inch (3 cm)	4 fl. oz.	400 ml
1.5 inch (4 cm)	5 fl. oz.	500 ml
2 inch (5 cm)	6 fl. oz.	600 ml

For smooth wall duct (ID 1 to 1.25 inch) and piston type machines, use 5 to 10 fl oz per thousand feet of duct (0.5 to 1.0 liter per kilometer). Place 75% of the lubricant in front of the missile and the rest behind it. The lubricant is spread by the missile as the cable is blown.

Polywater  
**Prelube**

**5 0 0 0™**

*for blowing fiber optic microcables*

Polywater® Prelube 5000™ is more concentrated than the Prelube 2000™. It is intended for blowing microcable into small diameter microtubes. The improved chemistry allows this product to spread further and lower friction at extremely low coating levels. The lower viscosity allows practical application into the microtubes.

### Features

- Polywater® Prelube 5000™ is easy to use. It can be squeezed into the small diameter microducts.
- Polywater® Prelube 5000™ works at extremely low coating levels. It coats further and more effectively than conventional blowing lubricants.
- Polywater® Prelube 5000™ has proven superior in side-by-side testing in blown microcable installations.
- Polywater® Prelube 5000™ is compatible with known microcable plastic jackets. However, it should not be used for resin-coated fiber cables.

### Application

The microduct tubing must be pressure tight. Clean and dry the tubing by blowing a tight fitting foam sponge through the microduct with high pressure. If excess water or dirt comes from the microduct, repeat the process. Trapped water can block the air flow.

Prelube 5000™ is effective at quantities as low as 0.05 mg/cm<sup>2</sup>. Squeeze recommended amount of lubricant into microduct. Quantity can be measured with a syringe or estimated based on duct fill length (table below). Spread lubricant by blowing a foam carrier or sponge through the microduct as many times as necessary to avoid puddling at the front of the duct.

Tube Size (OD/ID)	Lubricant per 1,000 ft of Microtube	
	Volume Required	Fill Length of Microtube
14/12 mm	0.30 fl. oz. (9 ml)	3 in. (8 cm)
12/10 mm	0.25 fl. oz. (7 ml)	4 in. (10 cm)
10/8 mm	0.20 fl. oz. (6 ml)	5 in. (12 cm)
8/6 mm	0.15 fl. oz. (4 ml)	6 in. (16 cm)
7/5 mm	0.13 fl. oz. (4 ml)	7 in. (19 cm)
5/3.5 mm	0.09 fl. oz. (3 ml)	10 in. (27 cm)
4/3 mm	0.08 fl. oz. (2 ml)	12 in. (31 cm)

The quantities of lubricant appropriate for any job will vary with the size, type, and condition of the duct. Use the recommendations above as a place to start and adjust as necessary.

## Cost Effectiveness

Polywater® Prelube 2000™ offers significant cost savings over “factory-lubricated” duct. In high quality HDPE duct, it lubricates efficiently at coating levels of 0.5 mg/cm<sup>2</sup> of duct surface. At these levels, the lubricant cost for 1.25" (3.2 cm) duct is approximately \$1 per 1,000 feet (\$3 per kilometer), much lower than the additional cost for factory-lubricated duct.

Polywater® Prelube 5000™ is extremely efficient and cost effective. It lubricates at coating levels as low as 0.05 mg/cm<sup>2</sup> of the tubing's interior surface. At these levels, the lubricant cost is \$0.15 to \$0.60 per 1,000 feet (\$0.50 to \$1.95 per kilometer) depending on microtube size.

## Packaging and Catalog Numbers

Package Size	Prelube 2000™	Prelube 2000™ - Winter Grade	Prelube 5000™ for Microcables
1-quart squeeze bottle (0.95 l)	P-35	WP-35	
1-gallon pail (3.8 l)	P-128	WP-128	
5-gallon pail (18.9 l)	P-640	WP-640	
8-fl ounce squeeze bottle			PM-8

## References

1. Installation of Fiber Optic Cables in Duct, W. Griffioen, Plumettaz S. A., 1993
2. The Use of the High Air-Speed Blown-Cable System for Placing Optical-Fiber Cables in Ducts, P. R. Briggs et al, NFOEC Conference, 1993
3. Analysis and Measurement of Friction in High Speed Air Blowing Installation of Fiber Optic Cable, J. M. Fee et al, NFOEC Conference, 1995

See the web page [www.polywater.com/airblow.html](http://www.polywater.com/airblow.html) for additional information on high speed air assisted cable installation.

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Makers of Polywater® and Dyna-Blue® Cable Lubricants and Pull-Planner™ 2000 Software

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