POLYWATER® CGL GEL LUBRICANT

DESCRIPTION

Polywater® CGL Lubricant is a high-performance, cable-pulling, gel lubricant formulated specifically for the communications industry. CGL is recommended for long-fiber optic, copper-paired, or coaxial cable pulls.

CGL Lubricant provides maximum friction reduction between cable and conduit under both low and high sidewall-bearing pressures. It is slow-drying and leaves a lubricating film after its water base has evaporated. CGL is a high-cling, gel material and can be applied by hand or by using Polywater's LP-D5 pumps.

PRODUCT BENEFITS

- Superior friction reduction – retains effective lubrication after drying
- Meets California regulation CCR 22 – Safe for the aquatic environment
- Compatible with cable jackets – for use with fire-rated cables
- Easy to use – High cling factor, clean, and non-staining

FRICTION TESTING

Friction is measured using the method described in the white paper, "Coefficient of Friction Measurement on Polywater's Friction Table, 2019". Values are averages based on cable jacket and conduit materials from multiple manufacturers. Typical friction coefficients at 200 lbs/ft (2.91 kN/m) normal pressure are shown.

COEFFICIENT OF FRICTION FOR POLYETHYLENE JACKET CABLE	
CONDUIT TYPE	**TYPICAL VALUE**
HDPE	.04
PVC	.05

PERFORMANCE PROPERTIES

Coatability:

Coatability is a measure of the lubricant's ability to coat the jacket as a thin film for continued lubricity on longer pulls.

CGL will wet out evenly on cable jacket surfaces. It will not bead up or rub off the jacket sample. A one-inch (25 mm) diameter XLPE cable dipped six inches (152 mm) into Polywater CGL, then withdrawn and held vertically, will retain at least 25 grams of Polywater CGL for one minute at 70°F (21°C).

Combustibility:

CGL has no flash point. Its dried residue is non-flammable and will not support combustion and spread flame.

OFFICIAL APPROVALS

UL Listed
UL Listed to Canadian safety standards

PHYSICAL PROPERTIES

PROPERTY	PERFORMANCE
Appearance	Opaque white stringy gel
Viscosity (Brookfield)	Light gel viscosity (35,000–50,000 cps @ 10 rpm)
pH	6.5–7.5 (neutral)
% Nonvolatile solids	4.0
VOC Content	0 g/L (200 g/L Winter Grade)

CABLE COMPATIBILITY

CGL Lubricant is compatible with common cable jacket materials. It does not cause stress cracking in polyethylene jackets commonly used on communications cables. MDPE and HDPE jacket materials were tested according to ASTM standard method.* After 168 hours exposure, none of the test specimens showed failures.

* *ASTM Test Method D1693, Environmental Stress-Cracking of Ethylene Plastics.*

ENVIRONMENTAL TESTING

CGL Lubricant is safe in the aquatic environment and passes CCR Title 22 Fathead Minnow Hazardous Waste Screen Bioassay.

PRODUCT	RESULT
POLYWATER® CGL Lubricant	PASS (LC_{50} > 750 mg/L)

APPLICATION PROPERTIES

CGL Lubricant is available in two grades: Regular Grade CGL and Winter Grade WCGL for cold weather use in temperatures as low as -20°F (-30°C). CGL can be hand-applied or pumped into the conduit using Polywater's LP-D5 pumps.

CGL is non-staining and can be cleaned with water.

Temperature Use Range:

CGL: 20°F to 120°F (-5°C to 50°C).	WCGL (Winter Grade version): -20°F to 120°F (-30°C to 50°C)

Temperature Stability:

CGL will not phase-out or separate after five freeze/thaw cycles or 5-day exposure at 120°F (50°C).

STORAGE AND HANDLING

Store tightly sealed, away from direct sunlight. Lubricant shelf life is 24 months.

CONTACT US

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