

Lubricants and Coatings

Lubricants and Cable Looseners	192
Coatings and Protectants	196



Each of the Wire Pulling Lubricants from 3M is designed for specific applications, so you can choose the right lubricant for the job at hand. You can count on 3M reliability through high pulling forces, extreme temperature changes, wet weather and the damaging effects of time.

The line of coatings and protectants from 3M protects surfaces against moisture, corrosion and other contaminants.

FREQUENTLY ASKED QUESTIONS

For pulling wires, which type of lubricant should be used—a wax or a water-based gel?

Regular (WL) water-based lubricant is preferred in ordinary applications. Wax (WLX) is best when water in conduit is suspected or higher storage/application temperature is expected, up to 194°F (90°C).

3M™ Lubricants and Cable Looseners

3M™ Wire Pulling Lubricant Gel



3M Wire Pulling Lubricant Gel is a water-soluble, translucent white gel that is easy to handle and apply to wire and cable

without runs or drips. The lubricant produces a low coefficient of friction that lessens the chance of wire damage from high pulling forces. Not only does Wire Pulling Lubricant Gel make wire pulling jobs smoother and safer, it also wipes off the cable quickly and cleanly before terminating or splicing. The consistent gel does not liquefy, or separate with hot or cold aging. It stays thick, smooth and ready to apply.

3M™ Wire Pulling Lubricant Wax/Gel



3M Wire Pulling Lubricant Wax/Gel can be used and stored in temperatures as high as 194°F (90°C), making

it the choice for hot weather applications. The thick, consistent lubricant does not liquefy or separate with hot aging; it scoops and applies easily to wire and cable without runs or drips in hot temperatures and will not evaporate too soon after pulls. The lubricant's low friction coefficient lessens the chance of wire damage from high pulling forces, wipes off the cable quickly and cleanly and leaves less residue in the conduit to block future pulls or prevent removal. Because Wire Pulling Lubricant Wax/Gel can be immersed in water for 30 minutes with minimal weight loss, it is also the choice for wet weather applications.

3M™ Wire Pulling Lubricant Communications



3M Wire Pulling Lubricant Communications is a slow drying, water-based liquid lubricant formulated for

lightguide cable pulling. The lubricant produces a low coefficient of friction that lessens the chance of lightguide cable damage from high pulling forces. Wire Pulling Lubricant Communications provides maximum tension reduction for long fiber optic pulls, multiple bend pulls and pulls in hot environments. It will not stress crack low-density polyethylene and is compatible with a broad range of cable jackets.

3M™ Wire Pulling Lubricant Wintergrade



3M Wire Pulling Lubricant Wintergrade can be used and stored in temperatures as low as 10°F (-12°C), making it the choice for cold weather

applications. The thick lubricant remains easy to scoop and apply to wire and cable without runs or drips in both warm and cold temperatures. The lubricant produces a low coefficient of friction that lessens the chance of wire damage from high pulling forces. It wipes off the cable quickly and cleanly before terminating or splicing common wire and cable jackets.

3M™ Cable Loosener

3M Cable Loosener is a white, water-based, general purpose dissolver/lubricant designed to free lodged cables by softening binding materials such as wax, rust, soap, dirt, adhesive, residue and bitumen. It is a thick, pourable liquid, which can be conveniently loaded directly into the conduit. After dissolving the binding agents and aiding the cable in breaking free, Cable Loosener also provides a lubricating film that helps remove the cable from the conduit, leaving the empty conduit undamaged and ready for re-use after cleaning and drying.

3M™ 5-Way Penetrant



3M 5-Way Penetrant is designed to penetrate, lubricate, de-moisturize and protect electrical apparatus. It provides protection against electrical failures caused by moisture and corrosion.

3M 5-Way Penetrant protects component products such as switches, relays, batteries, motors and generators and keeps them highly efficient even in humid environments. Very low surface tension causes 3M 5-Way Penetrant to force its way under water on metal surfaces, displacing moisture.

At its best
when conditions
are worst



PRODUCT REFERRAL GENERATOR

Connecting	
Spring Connectors.....	pg. 32
Insulation Displacement Connectors.....	pg. 38
Identifying	
Wire Markers.....	pg. 173
Terminating	
Terminals.....	pg. 47
Fastening	
Cable Ties.....	pg. 165



LUBRICANTS AND CABLE LOOSENERS

FEATURES	ADVANTAGES	BENEFITS
3M™ WIRE PULLING LUBRICANT GEL WL		
Temperature stable	Lube is not wasted	Saves money
Thick, non-runny gel	Faster and neater application. Less waste	Saves money
Colorless and non-staining	Faster and easier clean-up	Saves time
Low coefficient of friction	Less wire damage and equipment wear	Safety
Low residue (<3.5% solids)	Easier cable replacement during refurbishment	Saves time
UL Listed. Broadly compatible with wire and cable jackets	Lubricant suitable for multiple uses — electrical, co-ax, high voltage. Minimizes inventory investment	Saves money
3M™ WIRE PULLING LUBRICANT COMMUNICATIONS WLC		
Pourable	Coats evenly	Easy to use
Low residue	Less wire damage and equipment wear	Saves money
Non-staining and slow drying	Faster and easier clean-up	Saves time
Compatible with fiber optic, telephone and communications cable	Does not stress crack polyethylene	Safety
Does not separate at high or subfreezing temperatures	No waste due to phase separation	Saves money
3M™ WIRE PULLING LUBRICANT WAX/GEL WLX		
5.3% solid residue	Easier cable replacement during refurbishment	Saves time
Heat stable at 194°F (90°C) for 24 hours	No ruined, runny lube, low evaporation rate	Saves money
30 minutes immersed in water with minimal weight loss	Easier pulling in wet conditions	Easy to use
3M™ WIRE PULLING LUBRICANT WINTERGRADE WLW		
Temperature stable	Lube is not wasted	Saves money
Thick, non-runny gel	Faster and neater application. Less waste	Saves money
Non-staining	Faster and easier clean-up	Saves time
Low coefficient of friction	Less wire damage and equipment wear	Safety
Low residue (<3.5% solids)	Easier cable replacement during refurbishment	Saves time
Broadly compatible with wire and cable jackets	Lubricant suitable for multiple uses — electrical, co-ax, high voltage. Minimizes inventory investment	Saves money
3M™ WLW CABLE LOOSENER CL		
Dissolves binding materials to free lodged cables	Eliminates cut-ins	Saves money Saves time
Acts as both a dissolver and a lubricant	Eliminates the need to use two separate products	Saves money
Thick, pourable liquid	Easily loaded into conduit	Easy to use Saves time

Specifications and Ordering Information for 3M™ Lubricants

Product Number	UPC (054007-)	Size	Weight (lbs./case)	Case Qty.
SILICONE LUBRICANT				
Silicone Lubricant	85822*	24 fl. oz. (710 ml)	13.25 oz., can	12
5-WAY PENETRANT				
5-Way Penetrant	21305*	24 fl. oz. (710 ml)	17 oz. (481 gm)	12
WIRE PULLING LUBRICANT GEL				
WL-QT	50622	1-quart bottle, gel	28.0 (12,7 kgs)	12
WL-1	50623	1-gallon pail, gel	35.0 (15,9 kgs)	4
WL-5	50624	5-gallon pail, gel	42.0 (19,05 kgs)	1
WL-55	50625	55-gallon drum, gel	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT COMMUNICATION				
WLC-QT	41783	1-quart bottle, communications	28.0 (12,7 kgs)	12
WLC-1	41784	1-gallon pail, communications	35.0 (15,9 kgs)	4
WLC-5	41785	5-gallon pail, communications	42.0 (19,05 kgs)	1
WLC-55	41786	55-gallon drum, communications	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT WAX				
WLX-QT	41742	1-quart bottle, wax	28.0 (12,7 kgs)	12
WLX-1	41743	1-gallon pail, wax	35.0 (15,9 kgs)	4
WLX-5	41744	5-gallon pail, wax	42.0 (19,05 kgs)	1
WLX-55	41745	55-gallon drum, wax	460.0 (208,65 kgs)	1
WIRE PULLING LUBRICANT WINTERGRADE				
WLW-QT	41746	1-quart bottle, Wintergrade	28.0 (12,7 kgs)	12
WLW-1	41747	1-gallon pail, Wintergrade	7.4 (3,36 kgs)	4
WLW-5	41748	5-gallon pail, Wintergrade	42.0 (19,05 kgs)	1
WIRE PULLING CABLE LOOSENER				
CL-QT	42833	Cable loosener	quart	12
CL-1	42834	Cable loosener	1-gallon	4
CL-5	42835	Cable loosener	5-gallon pail	1

* UPC prefix 021200-

Wire Pulling Lubricant  

Temperature use range 20°F-110°F

WLC 

WLX 

Use above 32°F

Temperature storage range 10°F-194°F

WLW 

Temperature use range 10°F-110°F

3M™ Coatings and Protectants

3M™ Scotchkote™ Electrical Coating



3M Scotchkote Electrical Coating provides vinyl tapes with an extra oil, moisture and corrosion-resistant layer of flexible coating for problem areas. A fast drying sealant and bonding compound, the coating is provided

in a brush top 16 oz. can for quick and easy application, can containing 15 fl. oz. (0.44 L) of coating. 4 fl. oz. is also available.

3M™ Zinc Spray 16-501



3M Zinc Spray 16-501 provides an effective way to inhibit rust and corrosion with 97% pure zinc. Used for generation,

transmission and distribution equipment including towers, transformers, light standards and other metal and galvanized surfaces, this convenient aerosol leaves a barrier coating similar to hot-dipped galvanized surfaces. Noted for its quick drying capability, Zinc Spray 16-501 preserves base metal, even when scratched or chafed. This product is extremely flammable. Read and observe warnings on the label. Not for use on energized equipment.

SPECIAL DIRECTIONS FOR 16-501 ZINC SPRAY USE

1. Do not shake can up and down.
2. Turn can upside down. Hit sides while rotating can in 1/4 turns until ball breaks loose.
3. Hold can and swing in a circle until ball travels freely.
4. Repeat after each minute of use.
5. Hold can 8 to 10 inches from surface and apply evenly.
6. To prevent clogging, clear the valve by holding can upside down and spraying until only clear gas comes out.

Specifications and Ordering Information for 3M™ Scotchkote™ Electrical Coating

Product Number	UPC (054007-)	Description	Can Size	Minimum Order Case Qty.
Scotchkote Electrical Coating 15 oz.	14853	Flexible, fast drying sealant and bonding compound	15 fl. oz. (0.44 L)	10
Scotchkote Electrical Coating 4 oz.	43906	Flexible, fast drying sealant and bonding compound	4 fl. oz.	10
16-501	42828	Zinc-based corrosion protection	16 fl. oz.	12