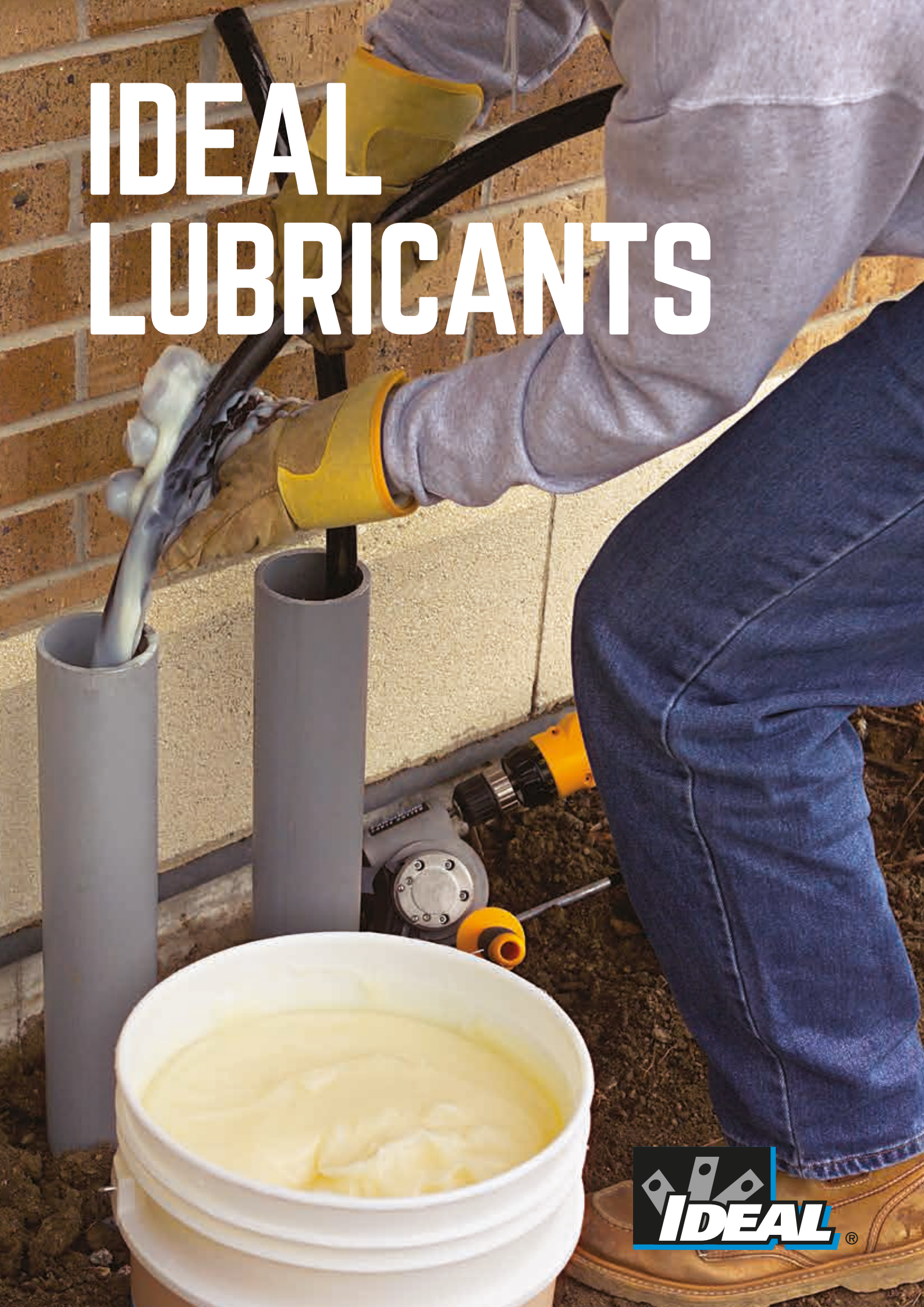
IDEAL LUBRICANTS
IDEAL®

WIRE LUBRICANTS & ACCESSORIES

Application Selection

	Commercial	Utility
Temperature Range	40˚F - 120˚F 4˚C - 49˚C	40˚F - 120˚F (4˚C - 49˚C) (indoors/outdoors) -28˚F - 40˚F (-33˚C - 4˚C) (outdoors)
Length of Run	Up to 75 ft. (finished construction) Up to 1,200 ft. (new construction)	Up to 250 ft.
Installation Time	8 hrs.	24 hrs.
Best Choice	ClearGlide® (finished construction) Yellow 77® and Yellow 77® Plus (new construction)	Aqua-Gel® II & Velocity™ (indoors, outdoors) Aqua-Gel® CW & IIP (outdoors)

Product Selection

	ClearGlide® Wire Pulling Lubricant	Yellow 77® Wire Pulling Lubricant	Yellow 77® Plus Wire Pulling Lubricant	Aqua-Gel® II Wire Pulling Lubricant	Aqua-Gel® IIP Wire Pulling Lubricant	Aqua-Gel® CW Wire Pulling Lubricant	Velocity™ Wire Pulling Lubricant
Colour	Clear	Yellow	Yellow	Blue	Blue	Pink	Cream
Base	Polymer	Wax	Wax	Polymer	Polymer	Polymer	Polymer
Average Coefficient of Friction*	.23	.17	.16	.19	.19	.19	.16
Stability Range	32˚F – 180˚F (0˚C – 82˚C)	32˚F – 130˚F (0˚C – 54˚C)	32˚F – 190˚F (0˚C – 88˚C)	32˚F – 180˚F (0˚C – 82˚C)	32˚F – 180˚F (0˚C – 82˚C)	-28˚F – 190˚F (-33˚C – 82˚C)	40˚F – 140˚F (4˚C – 82˚C)
Application Temperature Range	40˚F – 100˚F (4˚C – 38˚C)	40˚F – 100˚F (4˚C – 38˚C)	40˚F – 100˚F (4˚C – 38˚C)	40˚F – 100˚F (4˚C – 38˚C)	40˚F – 100˚F (4˚C – 38˚C)	-28˚F – 40˚F (-33˚C – 4˚C)	25˚F – 140˚F (-3.9˚C – 60˚C)
Compatibility (Cable Types):							
Rubber	●	●	●	●	●	●	●
Neoprene	●	●	●	●	●	●	●
Nylon	●	●	●	●	●	●	●
PVC	●	●	●	●	●	●	●
High-density or cross-linked polyethylene	●	●	●	●	●	●	●
Low-density polyethylene	●		●	●	●	●	●
Semiconducting jacket	●		●	●	●	●	●
Hypalon	●	●	●	●	●	●	●

*Results from NEETRAC, an independent testing laboratory affiliated with The Georgia Institute of Technology.

Recommended Qty. of Lubricant Formula

Q = .0015 x L X D
Q = Quantity of recommended lube in gallons
L = Length of pull in feet
D = Nominal ID of conduit in inches

This formula is used as a guideline on estimating the quantity of lube needed for various jobs.

Many factors go into a cable pull, however, this formula is just based on length of the pull and diameter of the conduit.

Increase quantities for the following troubles:

- Stiff, heavy cable
- Rough, old or dirty conduits
- High percent conduit fill
- Pulls with several bends
- High temperatures
- Not food grade

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Tel.: **01925 444 446 /** Fax: **01925 445 501**
Email **orders@idealelectrical.eu** **www.idealind.com**

A complete line of lubricants to meet all contractor, maintenance and utility applications.

An essential tool for all wire and cable installers, wire pulling lubricant helps prevent cable failures caused by excessive pulling stresses.

The best lubricant will help keep cable from twisting, scraping and stretching as it is being pulled through the conduit.

This also makes the work easier and faster to save on labour costs.

Choose the right lubricant:

Today's wide range of specialised cable types and job conditions require that some care be taken in choosing the right lubricant.

There are four basic lubricant properties to consider: **Lubricity**, **compatibility**, **stability** and **adherence**:

Lubricity:

Lubricity essentially tells you how "slippery" the lubricant is, and thus relates directly to the ease of the pull. It is defined by the "coefficient of friction" - the mathemathical ratio of the force required to move an object divided by the force tending to hold the moving surfaces together. The lower the coefficient of friction, the less resistance you will experience to pull the cable and the less pulling force you wil have to exert. A low coefficient of friction is thus one of the most desired features of a wire pulling lubricant.

Compatibility:

Some specialised jacket materials, particularly low density polyethylene and semiconducting insulations may be damaged by certain chemicals contained in some wire pulling lubricants. Care must be taken to be sure the lubricant you choose is approved for use with the type of cable being installed.

Stability:

An easily applied compound that maintains its lubricating properties throughout the pulling operation, and then dries to a residue that does not adversely affect electrical properties or future installations, is the most desirable.

The lubricant should not tend to separate into its component ingredients under the influence of temperature extremes in either storage or aplication. If the lubricant exhibits permanent separation under such conditions, the consistency is altered, reducing ease of application and lubricating effectiveness.

Most lubricants specify a "safe" temperature range within which separation does not occur or is easily reversible by simple stirring.

Adherence:

The best lubricants should cling to the cable and "plate out" to coat both the conduit and the cable throughout its length for maximum ease of pull. The dried residue should be a thin non-conducting film that will not block the conduit and which retains some lubricity to aid in possible future cable additions or removal.

IDEAL offers a complete line of lubricants to match any job requirement.
All are manufactured by IDEAL, to IDEAL's rigid quality control standards.
You can be assured of consistent product reliability -
batch-to-batch, week-to-week, year-to-year.

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Yellow 77® Plus Wire Pulling Lubricant

- Rapid Glide™ polytetrafluoroethylene additive provides greater lubricity than other wax-based lubricants — great for tough pulls
- Safe to use with all cable types
- Clings to cable throughout long runs, even where moisture is present
- Remains stable in high temperatures — usable from 32˚F to 190˚F (-1˚C to 88˚C)
- Dries slowly to a thin, non-conductive film that will not harden in conduit
- Creamy texture applies easily and uniformly by hand or brush
- Homogeneous blend requires no mixing
- Will not dry out – surface coat forms to control evaporation
- Environmentally safe – non-toxic, non-flammable and non-corrosive

Description	Part No.
1-qt. Squeeze Bottle	**31-398**
1-gal. Bucket	**31-391**
5-gal. Bucket	**31-395**

UL LISTED

Yellow 77® Wire Pulling Lubricant

- The #1 brand of wire pulling lubricant since 1959 — the perfect general purpose lube
- Wax-based formula provides superior lubricity
- Safe to use with most cable types except low-density polyethylene and semi-conducting jackets
- Clings to cable throughout long pulls, even where moisture is present
- Will not break down or separate after repeated exposure to freezing temperatures
- Dries to a thin, non-conductive film
- Creamy texture applies easily and uniformly by hand or brush
- Homogeneous blend requires no mixing
- Will not dry out — surface coat forms to control evaporation
- Environmentally safe — non-toxic, non-flammable and non-corrosive

Description	Part No.
1-qt. Squeeze Bottle	**31-358**
1-gal. Bucket	**31-351**
5-gal. Bucket	**31-355**
55-gal. Drum	**31-365**

UL LISTED

ClearGlide® Wire Pulling Lubricant

- Clear and colourless for quick and easy clean-up — great for indoor and retrofit pulls
- Exceptional lubricity for super-fast pulls
- Polymer-based formula is perfect for all electrical and datacomm applications
- Safe to use with all cable types
- Controlled evaporation rate is ideal for shorter runs
- Remains stable over wide temperature ranges — usable from 32˚F to 180˚F (0˚C to 82˚C)
- Dries to a semi-fluid film that will not clog conduit
- Easy to apply by hand, brush or pump
- Environmentally safe — non-toxic, non-flammable and non-corrosive

Description	Part No.
1-qt. Squeeze Bottle	**31-388**
1-gal. Bucket	**31-381**
5-gal. Bucket	**31-385**
55-gal. Drum	**31-2143**

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Aqua-Gel® II Cable Pulling Lubricant

- Polymer-based formula provides maximum tension reduction in high-stress electrical and communication cable-pulling operations
- Designed for pulling all types of utility cable in either field or plant application, including high voltage cable, secondary network cable, service wire and building wire
- Compatible with most cable types except composite rubber
- Clings to cable throughout long pulls
- Remains stable over wide temperature range — usable from 28˚F to 180˚F (-2˚C to 88˚C)
- Dries to a semi-fluid film that will not clog conduit
- Easy to apply by hand, brush or pump. Cleans up easily with soap and water
- Environmentally safe – non-toxic, non-flammable and non-corrosive
- For outdoor use only

UL LISTED

Description	Part No.
1-qt. Squeeze Bottle	**31-378**
1-gal. Bucket	**31-371**
5-gal. Bucket	**31-375**
55-gal. Drum	**31-3855**

Aqua-Gel® IIP Cable Pulling Lubricant

- Features the same excellent qualities as Aqua-Gel® II Cable Pulling Lubricant with a lower viscosity for easy pouring and pumping
- Formulated for use by electric utility and telecommunication companies
- Pourable formula clings to cable – eliminates hand application for a clean and safe job
- Compatible with most cable types, except composite rubber
- Cleans up easily with soap and water
- Environmentally safe – non-toxic, non-flammable and non-corrosive

Description	Part No.
1-gal. Jug	**31-421**
5-gal. Bucket	**31-425**
55-gal. Drum	**31-435**

UL LISTED

Aqua-Gel® CW Cable Pulling Lubricant

- Features the same excellent qualities as Aqua-Gel® II Cable Pulling Lubricant with a lower temperature range for use outdoors in cold weather
- Formulated for utility crews contractors who must work under the worst winter conditions. Can be stored in truck or outdoor shed between jobs without loss of performance due to freezing
- Polymer-based, cold-weather formula remains stable in storage from -28˚F to 190˚F (-33˚C to 82˚C)
- Formulated for exterior use in cold weather conditions
- Cleans up easily with soap and water
- Clings to cable throughout long pulls
- Well-suited for hand or poured applications
- Environmentally safe — non-toxic, non-flammable and non-corrosive
- Not recommended for indoor use

UL LISTED

Description	Part No.
1-qt. Squeeze Bottle	**31-298**
1-gal. Jug	**31-291**
5-gal. Bucket	**31-295**

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Velocity™ Wire Pulling Lubricant

- High cling factor
- Maximum friction reduction
- Specification grade
- Compatible with all popular cable types
- Temperature stable
- Non-combustible residue
- Environmentally safe — non-toxic, non-flammable and non-corrosive

Description	Part No.
1-qt. Squeeze Bottle	**31-276**
1-gal. Bucket	**31-277**
5-gal. Bucket	**31-278**

UL LISTED

Duct Seal

- Seals around junction boxes, flashings and service entrances
- Permanently soft, non-toxic compound can be painted immediately after application
- Will not adversely affect other plastic materials or corrode metals

Description	Part No.
1 lb. Block	**31-601**
5 lb. Block	**31-605**

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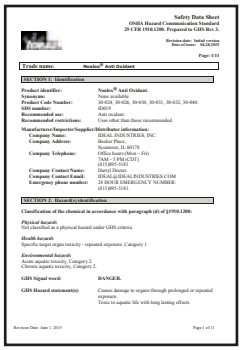
For a Safety Data Sheet on lubricants and other products visit us at idealind.com.



Noalox® Anti-Oxidant

- Anti-oxidant compound improves efficiency and service life of aluminium electrical applications
- Suspended zinc particles penetrate and cut aluminium oxide
- Provides additional inner-strand and inner-conductor current paths for improved conductivity and cooler connections

- Carrier material excludes air to minimise further oxidation
- For use with pressure-type wire connectors including lugs, taps, service entrances and split-bolts
- Reduces galling and seizing when applied on aluminium conduit joints promoting good ground continuity

Description	Part No.
1/2-oz. Tube	**30-024**
4-oz. Squeeze Bottle	**30-026**
8-oz. Squeeze Bottle	**30-030**
8-oz. Brush Cap	**30-031**
1-gal. Bucket	**30-032**
5-gal. Bucket	**30-040**
55-gal. Drum	**30-1216**

Compatible with aluminium to aluminium and aluminium to copper connections.

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