

3M

Cable Loosener

Data Sheet

1. Product Description

3M™ Cable Loosener is a product designed to free lodged cables by softening binding materials such as wax, rust, soap, dirt, adhesive, residue, and bitumen.

Cable Loosener Features:

Loosens stuck cables by softening binding agents such as wax, rust, soap, dirt, adhesive residue, and bitumen.

Lubricates to minimize the force required to pull the cable out once the cable is free.

Leaves empty conduit undamaged and ready for re-use after cleaning and drying.

Lowers duct reclamation costs by eliminating expensive cut-ins.

2. Applications

Cable Loosener is designed to loosen and lubricate cables that are held in conduits by wax, rust, soap, dirt, adhesive residue and bitumen. 3M Cable Loosener will dissolve a variety of binding agents. Due to the number of causes for “stuck cable”, 100% success cannot be guaranteed.

The use of 3M Cable Loosener is not intended to allow the re-use of the cable being removed. The cable(s) being removed may be ruined by the solvent nature of the product and the high pulling forces required for removal. Also, the removal of a single cable from a group of cables is usually not possible. All cable in a conduit should be removed in bulk and new cables installed.

3. Data: Physical Properties

- Color Milky White
- Viscosity 500 – 1000 cps
- Specific Gravity 0.95 water=1
- Combustible Liquid (See MSDS)
- Percent Solids 3%

4. Specifications

3M Cable Loosener is a white, water-based, general-purpose dissolver/lubricant. It is a thick, pourable liquid for convenient loading into conduit. It dissolves waxes, bitumens, solid deposits, and lifts rust. It also provides a lubricating film to ease cable removal once the cable has broken free.

5. Quantity

In most situations, 1 quart of 3M Cable Loosener should be used for every 50 feet of 1" conduit (1 liter per 15m of 2.5 cm conduit). For larger conduits, use the following equation:

$$Q = 0.02 \times L \times D \quad \text{Metric Formula: } Q = 0.024 \times L \times D$$

Q= quantity required in quarts (liters – metric)

L= length of the conduit feet (meters – metric)

D= diameter of the conduit in inches (centimeters – metric)

6. Use Procedure

- A.** De-energize all circuits for a safe operation. Do Not work with liquid chemicals around live circuits. Critical switch gear, etc, should be covered and protected from spillage and drippage.

NOTE: Caution should be exercised when working with this liquid material. Extinguish all sources of flame, sparks and heat. Wear protective goggles and gloves at all times. Consult the Material Safety Data Sheet for more complete details.

- B.** If possible, fish a tape through the conduit system. Attach a sponge or rag sized to fit snugly in the conduit, to the tape. If the conduit cannot be fished go to *Step D*.
- C.** Pour, pump, or squirt the appropriate quantity of 3M Cable Loosener into the higher end of the conduit system. Spread the Loosener throughout the conduit by pulling the sponge or rag back and forth with the tape(s).
- D.** Another way to spread the Loosener is with air pressure “blowing” it through the system. If only small amounts of 3M Cable Loosener can be loaded at one time, alternate air blasts with doses of Loosener. For long segments, the Loosener can be blown from both ends of the conduit.

Repeat steps B, C, and D as needed to distribute 3M Cable Loosener throughout the conduit. If there are pull-through boxes with access, treat each segment as an individual unit. For easier removal the cable should be pulled out at the lower end of vertical conduit systems.

- E. Attach a hydraulically crimped pulling eye or other strong fastener to the cable conductors. It may also help to have the pulling equipment attached as far as possible away from bends in the system. Allow the conduit/cable to sit with the Loosener for a minimum of 2 hours and preferably for 24 hours. Older systems require more time. During long waiting periods or if the conduit is hot, the ends should be plugged to trap vapors inside. After waiting, attempt to free the cable by pulling. Twisting cable in one direction can help break them free. Also, pulling on individual cables and breaking them free one at a time sometimes works.
- F. If cable fails to move attach a hydraulic jack and pull from the opposite end. Try pulling again after a 20 – 30 minute waiting period with the cable under tension. Increase tension on the cable and repeat steps, if necessary. Introduce “vibration” by hitting the tight cables with a pipe or bat to break cables free.

- G. If the cable is still stuck, cut the conduit at an accessible point and pull from this position. Repeat the loosening process with additional 3M Cable Loosener if necessary. Continue until the cable is free.

7. Cleanup

After cable removal, pull a water soaked rag through the conduit, then pull a drying swab back and forth until the conduit is dry. Blow air through the conduit until no 3M Cable Loosener odor remains.

8. Availability

3M Cable Loosener is available in 3 sizes from your local authorized 3M electrical distributor.

Cable Loosener, CL-QT	1 quart bottle
Cable Loosener, CL-1	1 gallon can
Cable Loosener, CL-5	5 gallon pail

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