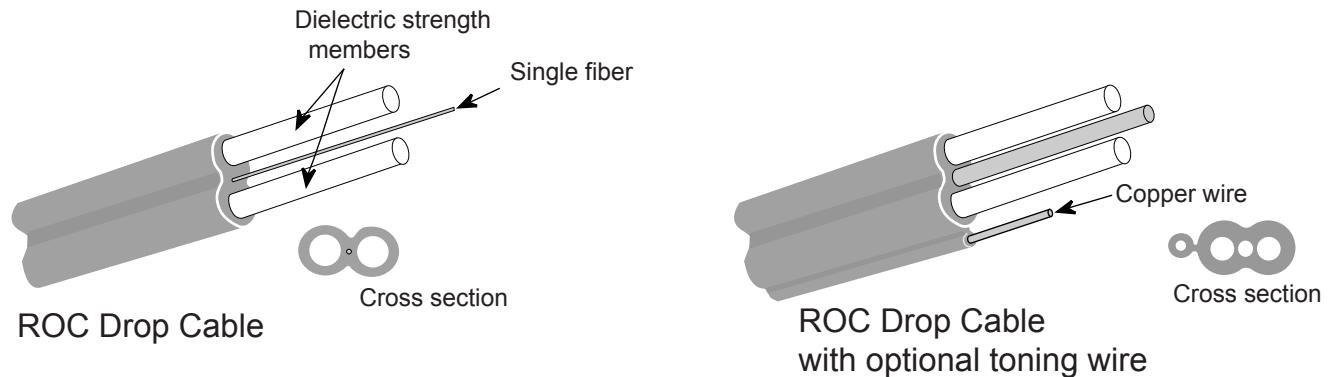


ROC™ Drop Cables



TPA-5101

Figure 1

1. General

This procedure describes a general method for cable installation and accessing the optical fiber in Corning ROC™ drop dielectric and toneable cable with FastAccess® Technology.

ROC drop cables (Figure 1) are outside plant cables containing either a single, blue colored 250 μm optical fiber or a single natural color 900 μm fiber (Figure 1). Unlike standard SST-Drop™ cables, there is no buffer tube or water blocking gel and currently the ROC drop cable is only available with one fiber. The ROC drop cable has a flat shape, with dielectric strength members situated on both sides of the fiber, making the cable especially versatile with exceptional crush resistance. The new FastAccess Technology feature allows easy access to the fiber without the need for any specialized tools.

2. PRECAUTIONS

2.1 Personal Safety



CAUTION: The wearing of cut-resistant safety gloves to protect your hands from accidental injury when using sharp-bladed tools and armored cable is strongly recommended. Use extreme care when working with severed armor. There will be a sharp edge where armor is cut. To minimize the chance of injury from the cut armor, cover the exposed edge with a wrap of electrical tape. To minimize the chance of injury from sharp-bladed tools, always cut away from yourself and others. Dispose of used blades and armor scrap properly.



CAUTION: Corning recommends the use of safety glasses (spectacles) conforming to ANSI Z87 for eye protection from accidental injury when handling chemicals, cables, or working with fiber. Pieces of glass fiber are very sharp and have the potential to damage the eye.

2.2 Laser Handling Precautions



WARNING: Never look directly into the end of a fiber or connector that may be carrying laser light. Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

2.3 Cable Handling Precautions



CAUTION: Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend the cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable; the cable may have to be replaced.

3. Tools and Materials

The following tools and materials are required to complete this procedure:

- Diagonal cutting pliers (side cutters) or scissors
- Tape measure
- Vinyl electrical tape

And for aerial applications only:

- Wedge clamp suitable for 2-pair copper drop
- Cable ties

4. Cable Span Termination

NESC heavy loading conditions limit drop cable spans to 150 feet (46 m) assuming 1% installation sag. Contact Corning for other applications. It is acceptable to use mid-span clamps on a messenger to support the drop cable where spans will exceed 150 feet (46 m).

Slack loops may be added as required by local practices. To add slack loops, place one or more 12 in (31 cm) diameter loops on the slack-end of the cable before routing the cable to the termination hardware. Secure the slack loops with cable ties.

Step 1: Use a wedge clamp to secure the cable in an aerial application (Figure 2).

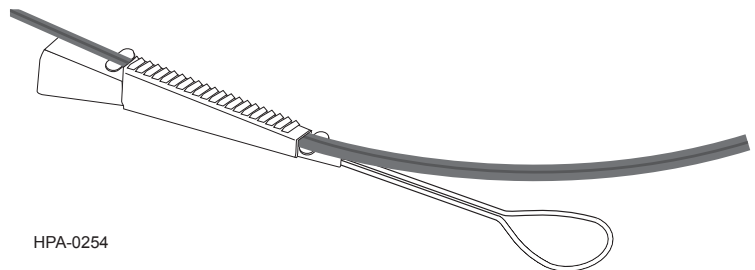


Figure 2



CAUTION: Do not place drip loops in the cable during installation. Forming a drip loop in the cable will most likely exceed the bend radius or break the cable's strength members, causing fiber damage and attenuation.

Step 2: Route and secure the ROC Drop cable into the selected termination hardware according to the installation procedures for that hardware.

5. Cable-end Preparation

Refer to the documentation for the hardware in which you are installing the cable for the recommended sheath removal lengths.

Mark the cable at the appropriate distance from the cable end with three full spiraling wraps of tape (Figure 3).

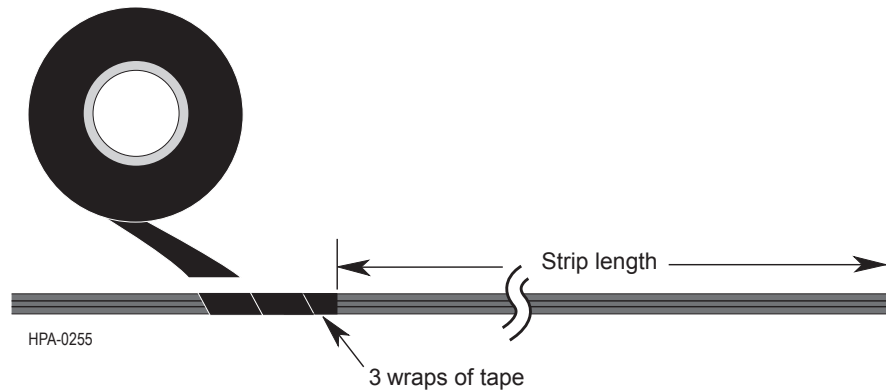


Figure 3

6. ROC™ Drop Toneable Cable Preparation

6.1 Separating the Toning Wire

NOTE: The majority of ROC drop cables shipped with optional toning wires have 12-15 in (30.5-38.1 cm) of the jacketed copper component already separated, looped, and secured by tape to the side of the optical cable.

Prior to accessing the fiber or placing the cable into optical hardware, the optional toning wire must be separated from the optical portion of the cable.

IMPORTANT: Do NOT cut off the toning wire at this time — merely separate it from the optical cable.

IMPORTANT: Termination, grounding, and bonding of the toning wire should be performed in accordance with local codes, ordinances, and practices.

Step 1: Determine the point on the cable where the separation between the toning wire and cable must occur. Be certain the separation begins outside the splice closure or hardware.

Step 2: Holding the cable in one gloved hand with the toning wire facing up, use a sheath knife to separate the toning wire (Figure 4). Only light pressure is needed to cut the web. Cut with the blade tilted toward the cable to minimize leftover web material on the cable.

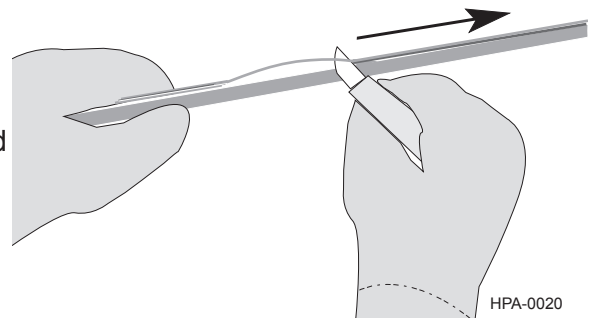


Figure 4

6.2 Storing the Toning Wire

- Step 1:** Place a piece of electrical tape over the end of the wire (Figure 5).
- Step 2:** Place an additional wrap of tape around the entire cable at the start of the separation point to prevent further splitting of the web.
- Step 3:** Coil the toning wire and secure the coil to the cable with a wrap of electrical tape.

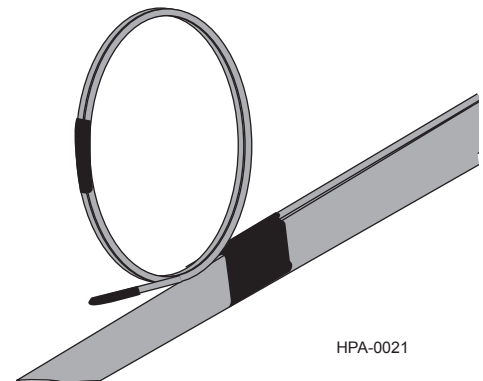


Figure 5

6.3 Removing Web Remnant

- Step 1:** Using the cable sheath knife or a utility knife, followed by sanding with an emery cloth, remove any web remnants on the cable area(s) that will be sealed in any closure or hardware (Figure 6).
- Step 2:** If accessing the copper toning wire is necessary, use a standard wire stripper and strip off the required length of jacket material.

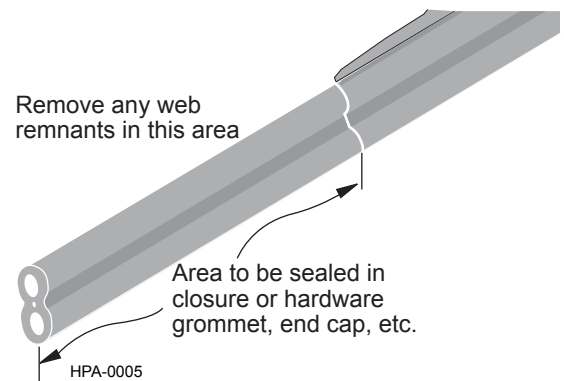


Figure 6

7. Access the Fiber

- Step 2:** Holding the cable in one hand, use side cutters or scissors and cut 1 to 2 inches (25 - 50 mm) down the length of the cable inside the channel between the strength rods (Figure 7).

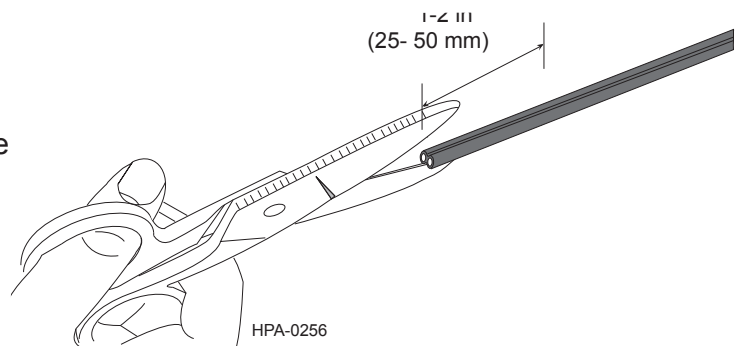


Figure 7

- Step 3:** After the snip is complete, grab each half of the cable sheath securely and pull to separate sheath along the length of the cable to the tape wrap. It is best to pull each half at a slight angle relative to the cable direction (Figure 8).

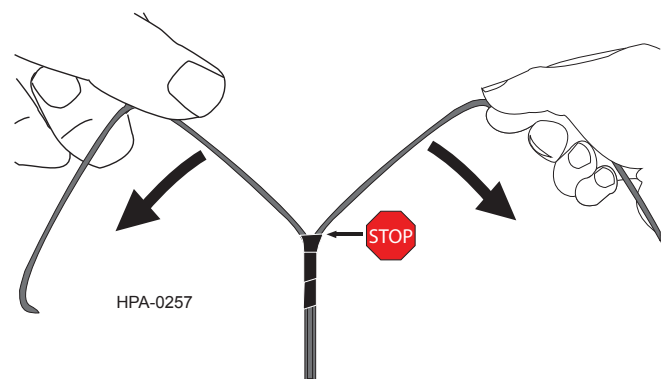


Figure 8

Step 4: Determine which cable half has the fiber embedded in its sheath.

- **For 250 μ m dielectric cable:**

- a. Place a bend at the end of the sheath with the side holding the fiber on the inside of the bend's curve.
- b. When the fiber is exposed, remove the rest of the strip length (Figure 9).

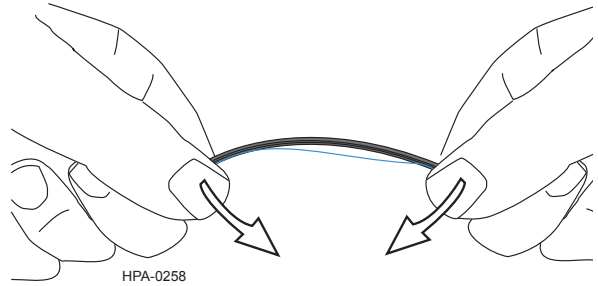


Figure 9

- **For 900 μ m dielectric and toneable cable:**

- a. Cut the end of the cable sheath with the fiber at an angle (Figure 10).
- b. Then use your fingers to pull the 900 μ m subunit from the protective jacket.

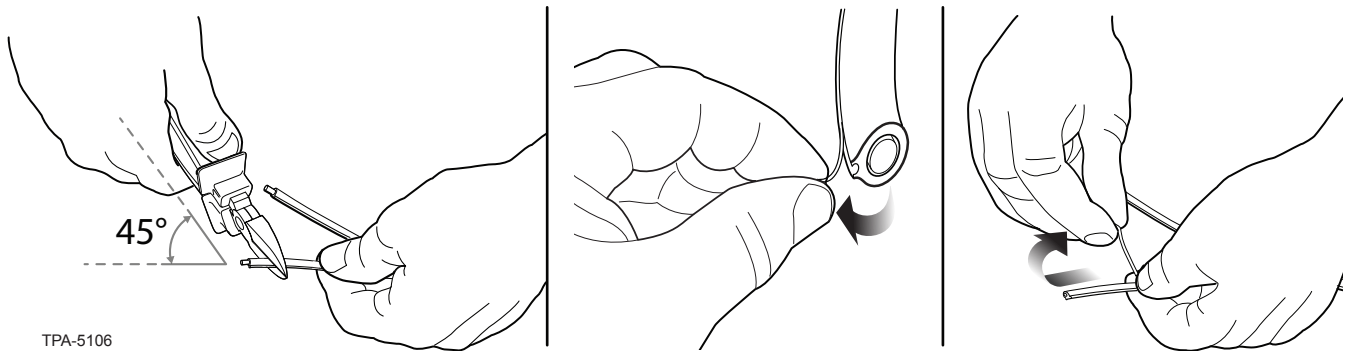


Figure 10

Step 5: Using care to avoid cutting the fiber, use scissors or side cutters to cut the sheath and GRP strength rods as flush as possible with the tape wrap (Figure 11). The tape will prevent trimming completely flush without damaging the fiber.

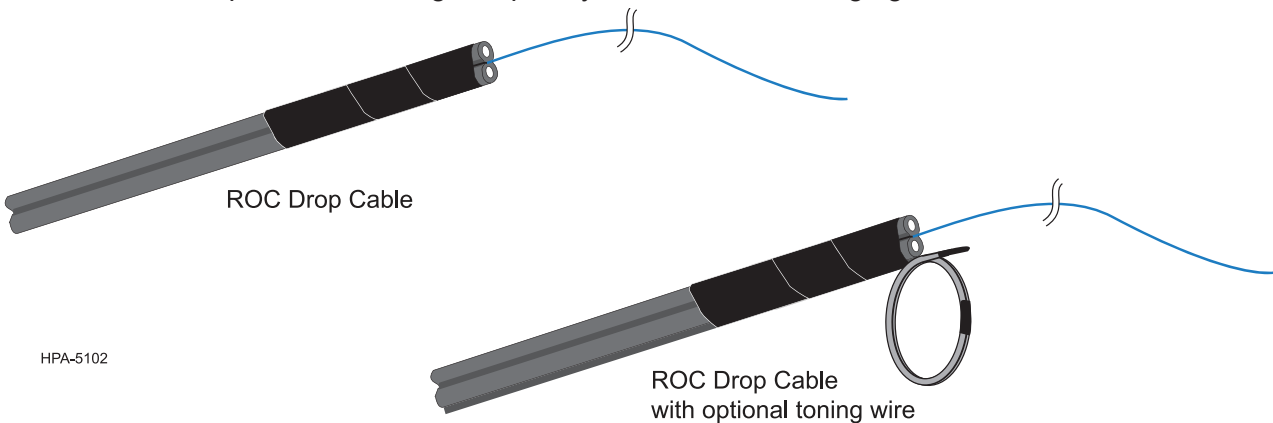


Figure 11

The fiber is now exposed and both the cable and fiber are ready to be placed into the required hardware for the specific application.