

# CORNING

## Sheath Removal Procedure for MIC® 250 µm 2.0 mm Cable with and without Interlocking Armor

P/N 004-198-AEN

Issue 2

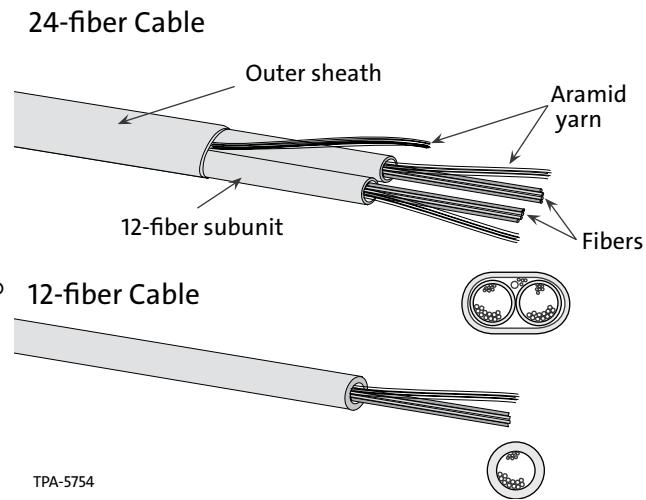
related literature | Search [www.corning.com/opcomm](http://www.corning.com/opcomm). Click on “Resources.”

004-024	<a href="#">Sheath Removal Procedure for Single Layer MIC® Cables</a>
004-025	<a href="#">Sheath Removal Procedure for FREEDM ONE™ Cables</a>
004-030	<a href="#">Sheath Removal Procedure for UNITIZED MIC® Cables</a>
004-071	<a href="#">Sheath Removal of Armored and Non-Armored FREEDM® Riser -Rated Cables</a>
004-073	<a href="#">Sheath Removal of Corning Optical Communications Ribbon Riser and Plenum Cables</a>
004-083	<a href="#">Sheath Removal Procedure for FREEDM® /LST Cables</a>

### 1. General

This document describes how to remove the sheaths or “jackets” from MIC® 250 µm 2.0 mm cable (Figure 1) to prepare the cable’s optical fibers for termination.

MIC 250 µm 2.0 mm cables are versatile, high-performance cables designed to facilitate specific pre-connectorized cable assembly applications. MIC 250 µm 2.0 mm cable is Corning® SMF-28® Ultra and multimode fiber. Sub-unit outer jacket is 2.0 mm.



### 2. Tools and Materials

The following tools from the M67-003 fusion splicing tool kit are required for this procedure:

- Tape measure (100305-01)
- Permanent marker (2102003-01)
- Scissors (100294-01)
- Phillips screwdriver (100332-01)
- 2-in slotted screwdriver (100302-01)
- For 24-fiber cables:  
Ideal® stripper (Ideal catalog # 45-164)
- For 12-fiber cables and sub-units:  
Ideal stripper (Ideal catalog # 45-163)
- Fiber optic stripping tool (3205004-01)

### 3. Outer Sheath Removal of 24-Fiber Cables

**NOTE:** If you are working with a 12-fiber cable, skip to Section 4.

**Step 1:** Determine the jacket removal length required for the hardware or installation you are working on.

**Step 2:** Measure and mark this length from the end of the cable’s outer sheath using a tape measure and a permanent marking pen (Figure 2).

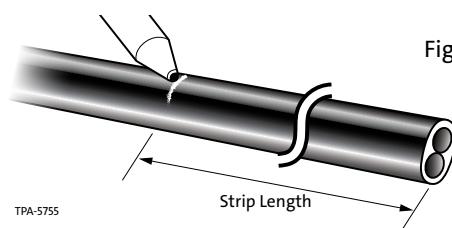


Figure 2



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



**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.

**Step 3:** Before using the large Ideal stripper, make sure that it is properly adjusted. Use a screwdriver (Figure 3) to adjust one of the blades on the side of the cable stripper so that it seats against the lower jaw, but does not force the jaw open. Leave the blades on the front and other side of the tool fully retracted so that they do not extend into the grooves of the lower jaw.

**Step 4:** To score the outer sheath:

- Open the tool by squeezing its handles together and place the stripper's blade on the sheath at the strip length mark.
- Hold the cable steady with one hand to prevent it from twisting. Use your other hand to rotate the tool one complete turn around the cable sheath to score it (Figure 4). Remove the tool from the cable.
- Carefully flex the cable sheath to break it at the score point (Figure 5). Slide the severed section of sheath off the sub-units.

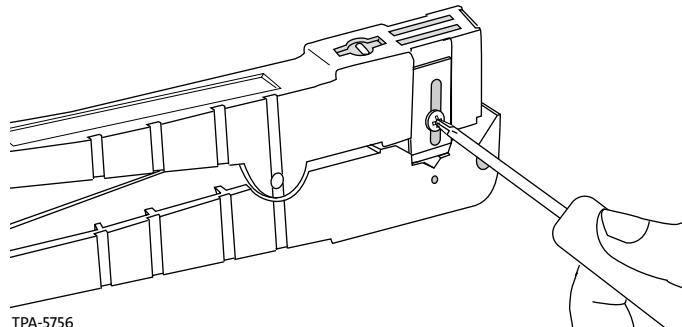


Figure 3

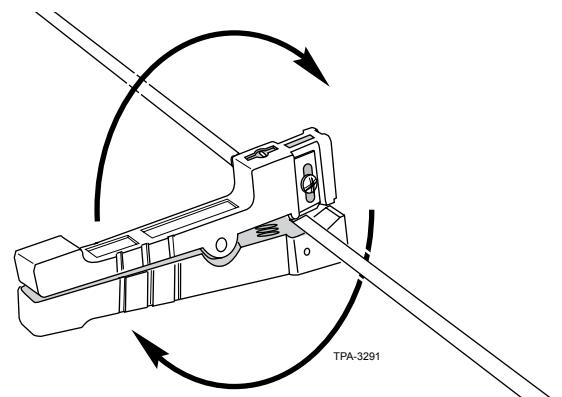


Figure 4

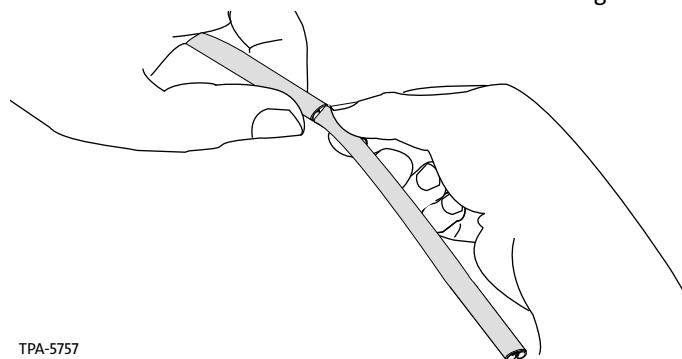


Figure 5

**Step 5:** Use scissors to cut the aramid yarn to the length required for cable strain-relief in your installation.

#### 4. Sheath Removal for 12-Fiber Cable and 12-Fiber Sub-Unit

**Step 1:** Determine the jacket removal length required for the hardware or installation you are working on.

**NOTE:** If this is an armor cable, complete armor sheath removal first (see page 4, section 5).

**Step 2:** Measure and mark this length from the end of the cable's outer sheath using a tape measure and a permanent marking pen (Figure 6).

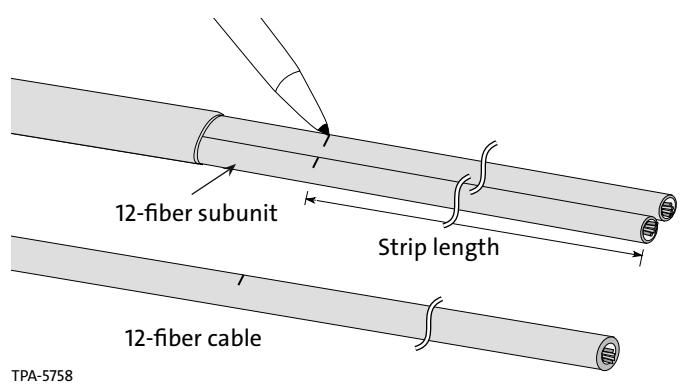


Figure 6



**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.

**Step 3:** Before using the small Ideal stripper, make sure that it is properly adjusted. Use a screwdriver (Figure 7) to adjust one of the blades on the side of the cable stripper so that it seats against the lower jaw, but does not force the jaw open. Leave the blades on the front and other side of the tool fully retracted so that they do not extend into the grooves of the lower jaw.

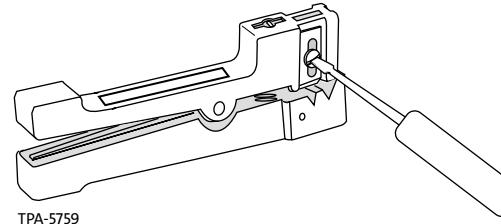


Figure 7

**Step 4:** To score the outer sheath:

- Open the tool by squeezing its handles together and place the stripper's blade on the sheath at the strip length mark.
- Hold the cable steady with one hand to prevent it from twisting. Use your other hand to rotate the tool one complete turn around the cable sheath to score it (Figure 8). Remove the tool from the cable.
- Carefully flex the cable sheath to break it at the score point. Slide the severed section of sheath off the sub-units (Figure 9).

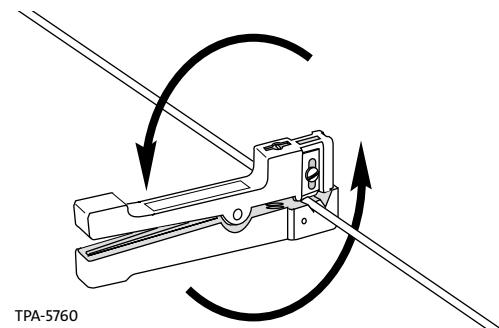


Figure 8

**Step 5:** Use scissors to cut the aramid yarn to the length required for cable strain-relief in your installation.

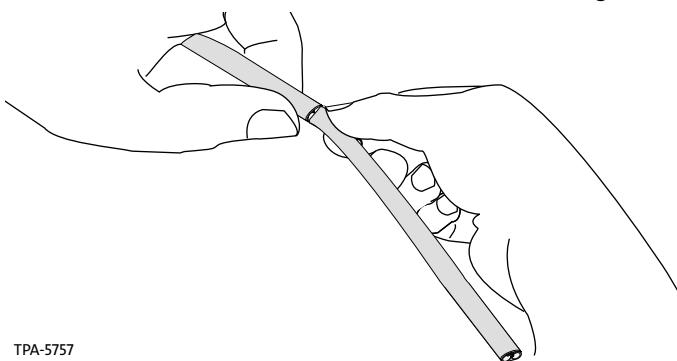


Figure 9



**CAUTION:** Cleaved or broken glass fibers are very sharp and can pierce the skin easily. Do not let these pieces of fiber stick to your clothing or drop in the work area where they can cause injury later. Use tweezers to pick up cleaved or broken pieces of glass fibers and place them on a loop of tape kept for that purpose alone. **Good housekeeping is very important.**

**Step 6:** Determine the 250 µm coating strip length for your application. Separate the fibers and select one to strip, using a fiber optic stripping tool as described in the tool's instructions (SRP-005-006) (Figure 10).

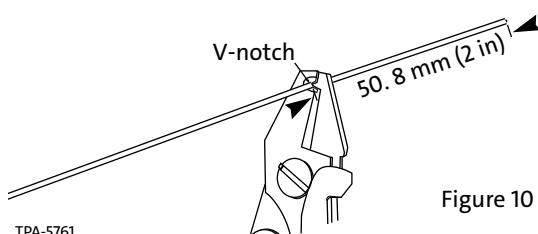


Figure 10

## 5. Sheath Removal with Interlocking Armor

Refer to the documentation with the product you are installing to obtain the proper sheath removal.

- Step 1:** Use the tape measure to the proper length and mark this length with a wrap of tape (Figure 11).

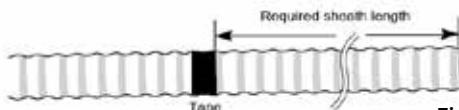


Figure 11

- Step 2:** Using the hook blade knife, make a ring cut through the outer sheath at the tape mark (Figure 12).

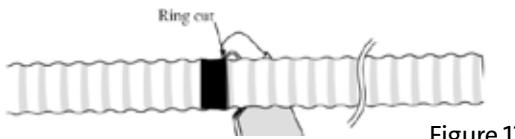


Figure 12

- Step 3:** Make a second ring cut in the outer sheath 10 cm (4 in) past the tape mark (Figure 13).

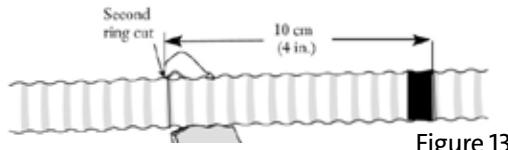


Figure 13

- Step 4:** Remove the tape mark.

- Step 5:** Using the hook blade, slit the 10 cm (4 in) length of outer sheath between the ring cuts (Figure 14). Remove this section of sheath.

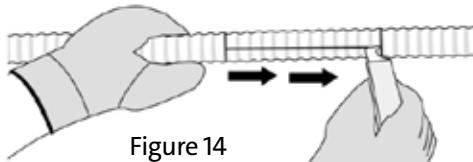


Figure 14

- Step 6:** Place the exposed section of armor in the cable guide of the armor splitting tool (Figure 15). Tighten the tool's thumb screw a to secure the cable in the tool.

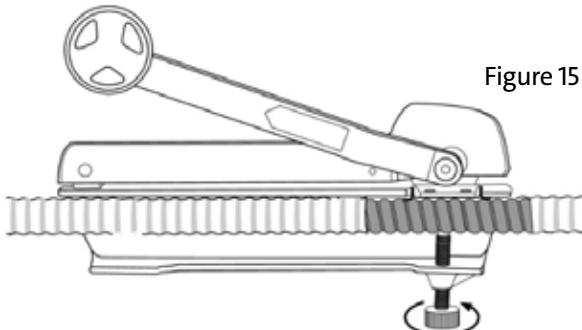


Figure 15

- Step 7:** Holding the tool near the cutting head, squeeze the tool to bring the cutting blade against the armor, and rotate the crank handle (Figure 16). When the force required to rotate the crank handle suddenly decreases, the cut is complete. Back off the thumbscrew and remove the cable.

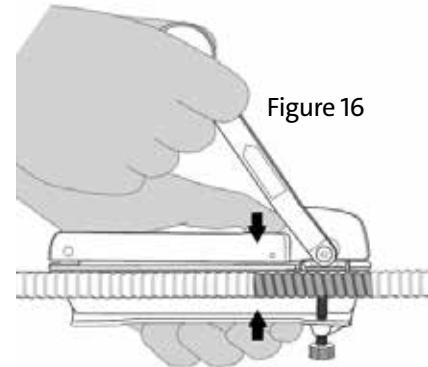


Figure 16

**CAUTION:** There will be a sharp edge where the interlocking armor was cut. To minimize the chance of injury, cover the exposed edge with a wrap of vinyl tape.

- Step 8:** Holding the cable on both sides of the cut, twist the cable to separate the armor. Remove the armor and outer sheath from the free end of the cable by sliding it off. (Figure 17).

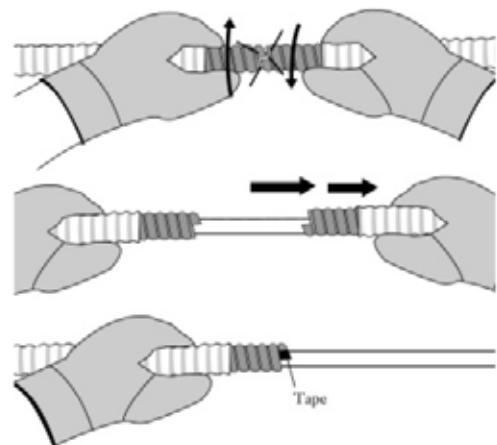


Figure 17

- Step 9:** Ground the armor per your company's standard procedures. To ground the cable with an alligator clip:
- Carefully pry up the armor so that the base plate of the grounding clamp can be slid under the armor.
  - Slide base plate under the armor. Be careful not to damage the intrabuilding cable (Figure 18).
  - If necessary, slit the outer sheath to accommodate the top plate. Place the top plate over the base plate and tighten it down with its lock nut (Figure 19). A few light taps on the top plate may help seat the teeth of the clamp.
  - Place the grounding braid on top of the lock nut and secure with a second lock nut.
  - Cover the grounding clamp and split portion of the sheath with vinyl tape (Figure 20).

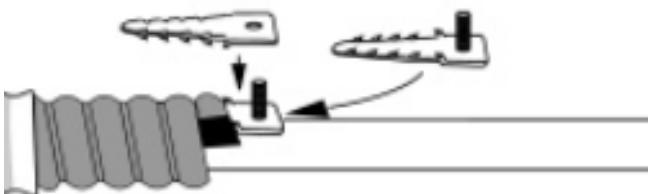


Figure 18

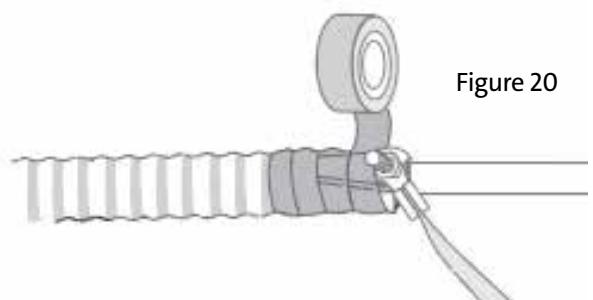


Figure 20

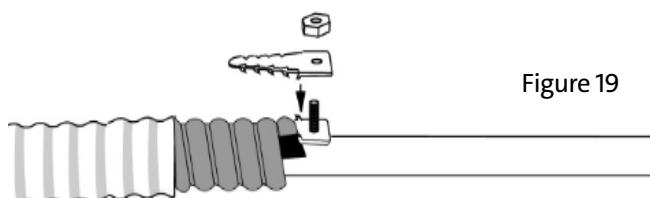


Figure 19