



A Furukawa Company

Recommendations for Panduit Opti-Core Sheath Removal and Ribbon Matrix Removal

Contents	Section
General	1
Precautions	2
Required Tools	3
End Prep Sheath Removal	4
Accuribbon® Matrix Removal	5

1. General

1.1 The following procedure describes sheath removal and ribbon matrix removal for OFS Panduit Opti-Core 10 Gig 300 Fiber optic Cable.

1.2 Panduit Opti-Core is a central tube Plenum rated cables and is ideal for optical network systems in a variety of installation environments including data centers, central offices and CATV head ends. Opt-Core cable contains 12-fiber AccuRibbon® and is available with 12 to 144 fibers.

2. Precautions

2.1 Panduit Opti-Core is designed specifically for indoor applications and should only be used in low-tension applications. Care must be exercised during installation to ensure that the cable tension does not exceed the maximum rated cable load (MRCL).

2.2 Cable tensile load ratings are specified for both static and dynamic conditions. The dynamic condition represents a cable during installation that may be subjected to the MRCL. The static condition represents an installed cable that may be subjected to long-term residual load. Cable tensile load ratings for both static and dynamic conditions are given in Table 1.

2.3 Cable minimum bend diameters¹ are also defined for static and dynamic

¹ Some cable manufacturers specify minimum bend radius rather than minimum bend diameter. For comparative purposes, the minimum bend radii for AccuFlex® Plus cable are 10 x OD and 20 x OD, respectively, for static and dynamic conditions.

conditions and are expressed as a multiple of the cable outside diameter (OD). The static condition represents an installed cable that may be subjected to long-term residual load. The dynamic condition represents a cable during installation that may be subjected to the MRCL. For Panduit Opti-Core cable, the minimum bend diameter under static conditions is 10 × OD and the minimum bend diameter under dynamic conditions is 20 × OD. Minimum recommended bend diameters for Panduit Opti-Core cable is summarized in Table 1.

2.4 Minimum bend diameters are also specified for cable storage coils. The minimum storage coil diameter for Panduit Opti-Core cable is 20 × OD. See Table 1 for specific dimensions.

Table 1 - Maximum Cable Loads and Minimum Bend Diameters for Panduit Opti-Core

Fiber Count	Cable OD	Maximum Rated Cable Load	Maximum Long Term Load	Minimum Bend Diameters		
				Dynamic Condition	Static Condition	Storage Coils
Plenum 12 – 72	0.34 in. (8.7 mm)	240 lb (1067 N)	240 lb (1067 N)	6.8 in. (16.7 cm)	3.42 in. (8.6 cm)	6.8 in. (16.7 cm)

3. Required Tools

The following tools and materials are recommended for use in the sheath removal procedure.

- Cable sheath knife (alternate method)
- Jokari cable stripping tool
- Scissors
- Diagonal cutters
- Pliers
- Tape measure
- Red ribbon tape CHR M-717
- Ideal Coax cable stripper 45-165
- Blue ribbon cleaning pad
- Gloves
- Safety glasses

Caution: Safety glasses and gloves should always be worn when opening and/or removing the cable sheath.

4. Sheath Removal

4.1 Mark the cable jacket at the required breakout length. Ring cut the cable jacket at the mark and flex the cable to snap the jacket (Figure 1).

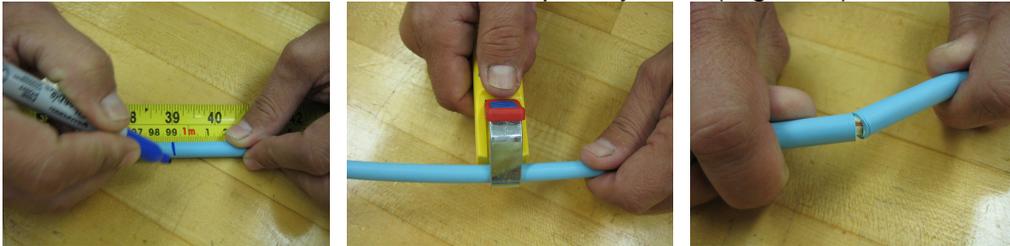


Figure 1 – Ring cut and separating the cable jacket.

4.2 Alternate method of ring cut can be made with a razor knife. **Use extreme caution when cutting with a razor knife** (Figure 2)

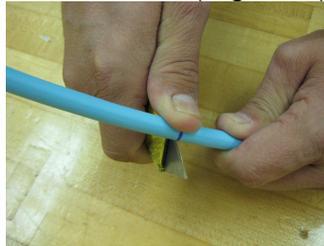


Figure 2- Ring cutting with razor knife.

4.3 Ring cut the cable jacket 4 inches from the end. Flex the cable to snap the jacket. Pick the two ripcords through the ring cut with a dental pick or similar tool

and pull out the side of the cable. (Figure 2).

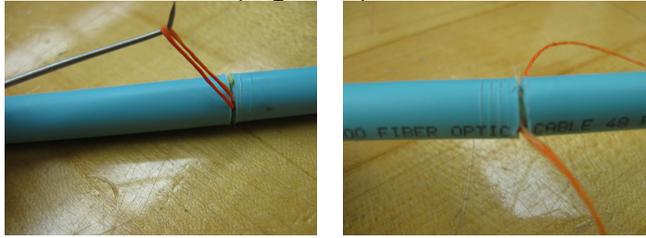


Figure 2- Exposing the ripcord.

4.4 Pull the rip cords through the cable jacket utilizing a pair of needle nose pliers (Figure 3).

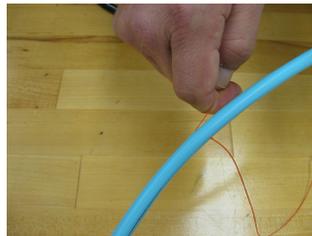


Figure 3 – Pull the ripcords through the cable jacket.

4.5 Fold the outer jacket back and remove by cutting away the two pieces. (Figure 4).

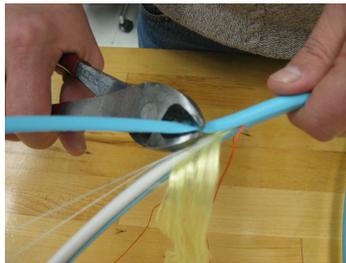


Figure 4 – Removing the outer jacket.

4.6 Where applicable cut away the Kevlar and strength members. Mark the central tube at the location of tube to be removed at the required length (Figure 5).

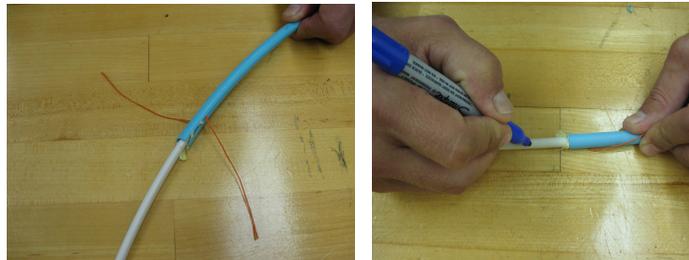


Figure 5-Mark the central tube at the appropriate length to be removed.

4.7 Score the tube with the Ideal coax cable stripper 45-165. Set the depth of the blade with trial pieces until the depth is suitable to score the tube without nicking the fiber (Figure 6).

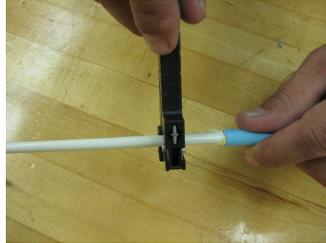


Figure 6-Scoring the central tube.

4.8 Flex and snap the central tube at the score mark, then pull and remove the core tube to expose the AccuRibbons® (Figure 7).

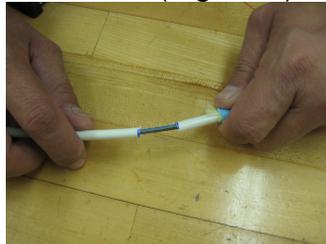


Figure 7 – Removing the central tube.

5. Accuribbon® Matrix Removal

5.1 Mark the AccuRibbons® at the location for removing the matrix material. Place a piece of red tape at the location to prevent the AccuRibbons® from splitting further than required (Figure 8).

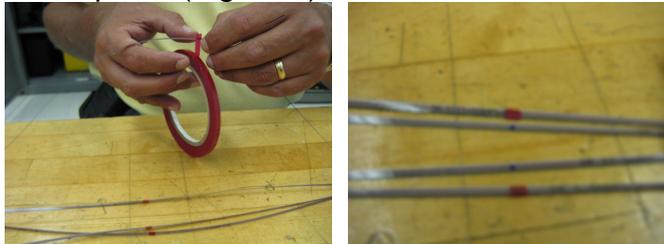


Figure 8 – Mark and tape the ribbons at required breakout length.

5.2 Flare the end of the AccuRibbons® to begin breaking down the matrix and peel each individual fiber back to the red tape. Remove the loose matrix as necessary during the fiber peel back process. Place the AccuRibbons® on a flat surface and place the taped end on a towel to prevent the alcohol from wicking past the tape. Apply isopropyl alcohol on the exposed fibers to soften any remaining matrix material (Figure 9).

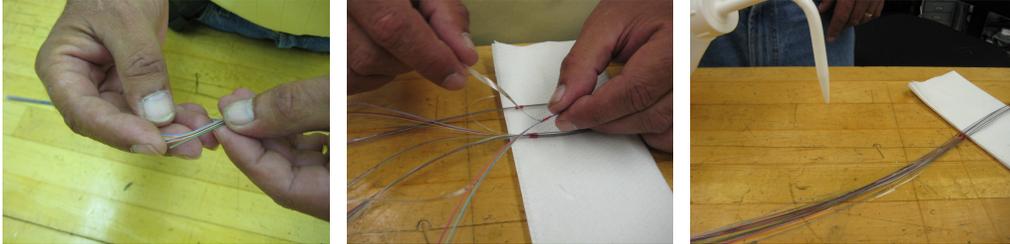


Figure 9 – Removing the matrix material from the AccuRibbons®.

5.3 Place the fibers between a blue pad and slide the pad down the fibers to remove any excess matrix. Sometimes the matrix may remain on the edge fibers after peeling and soaking. If this occurs the blue pad can be utilized again to remove any remaining matrix material (Figure 10).

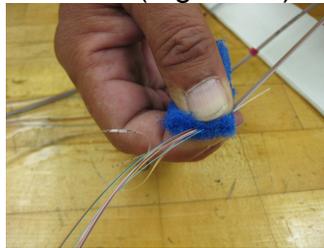


Figure 10- Removing excess matrix with blue pad.

5.4 Dry the fibers and check for remaining matrix. Fibers should be clean and ready for next process.

If you have any questions or require additional information, please contact OFS at 888-FIBER-HELP (888-342-3743).