

# RECOMMENDED Procedure

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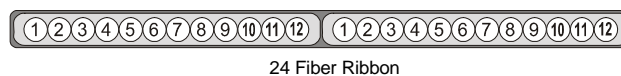
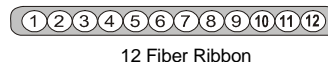
## SP-F02-007 Ribbon Access Procedures (MA-1), Issue 8

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### 1.0 General

Optical fiber ribbons contain multiple, individually colored, 250 μm optical fibers arranged in a flat linear matrix encapsulated by a UV cured polymer material. The ribbon structure is ideal for high fiber count cables, quick fiber identification, and mass splicing.

Sometimes, it is necessary to access individual fibers within a ribbon for distribution or emergency purposes. This document contains procedures for accessing individual fibers by removing the matrix encapsulant either at the end of a ribbon or in the middle of a continuous piece of ribbon (midspan). The ribbon can be either 12 fiber or 24 fiber.



### 2.0 Safety Precautions

**2.1** The use of safety eye wear is strongly recommended while handling the glass optical fibers.

**2.2 WARNING:** Cyanoacrylate glue is an eye irritant. Avoid contact of cyanoacrylate based glue with eyes or skin. Bonds skin instantly. Read cautions on glue dispenser label carefully. MSDS can be obtained from Sumitomo or the glue manufacturer.

**NOTE:** The cyanoacrylate glue has a limited shelf life of approximately 6 months. Refrigerate if possible to ensure full life expectancy. If glue has difficulty drying, replace glue dispenser with any over the shelf cyanoacrylate based rapid drying glues.

### 3.0 Reference Documents

Sumitomo cable sheath preparation procedures:

**SP-F02-004** *Ribbon-Armorlux® Cable*

**SP-F02-005** *Ribbon-ADS™ Cable*

**SP-F02-006** *Ribbon Cable Mid-Span Access*

**SP-F02-008** *Ribbon-Riser Cable*

**SP-F02-011** *Ribbon Splitting Procedure*

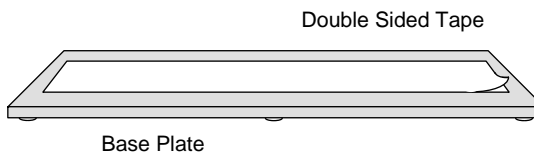
## 4.0 Tools Required

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

1. Base Plate
2. Double Sided Adhesive Tape
3. Plastic Sumicard
4. Cyanoacrylate "Super" Glue
5. Cotton Gauze Pad
6. Isopropyl Alcohol (not included)

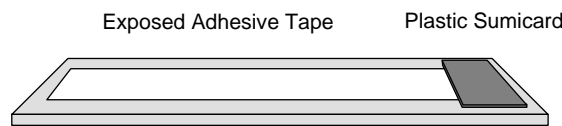
## 5.0 Procedures

**5.1** Place a piece of double sided tape to the base plate by removing the protective paper from one side of the tape and adhering it to the plate.

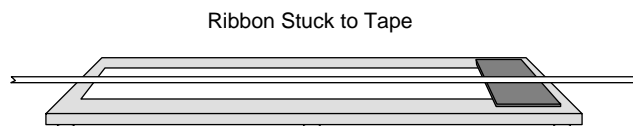


**5.2** Remove second protective layer of double sided tape exposing the adhesive.

**5.3** Place a plastic Sumicard at one end of the adhesive section making sure that a clean, unused section of the card is face up towards the tape.

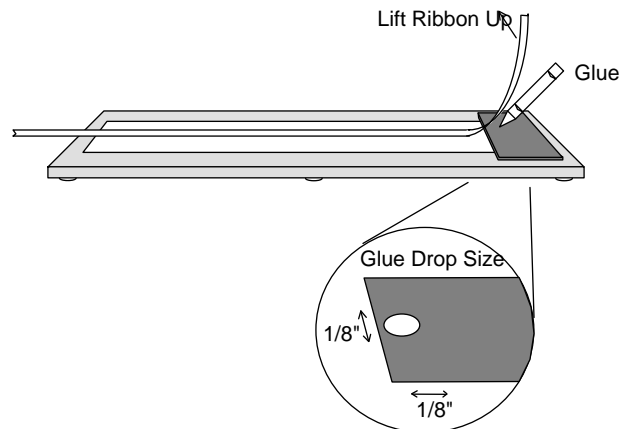


**5.4** Clean ribbon thoroughly with alcohol. Place the section of ribbon to be accessed down the length of adhesive tape and across the face of the Sumicard. Run finger down the ribbon several times to ensure adhesion to the tape.



**NOTE:** If using a 24 fiber ribbon, the ribbon should be split into two 12 fiber ribbons using the 24 fiber splitting tool. Prior to peeling, refer to SP-F02-011.

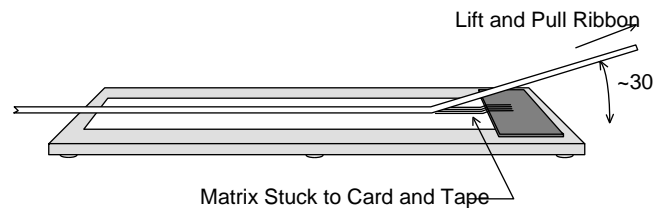
**5.5** Lift the ribbon end near the card and place a medium sized drop of Cyanoacrylate glue on the Sumicard near the edge.



**5.6** Lay the ribbon back across the drop of glue and press ribbon against card with finger and gauze pad to spread out the glue. Rub ribbon several times. Allow glue to dry for approximately 15 seconds.

**NOTE:** Depending on the age of the glue, longer drying times might be required. If adhesion between the ribbon and the Sumicard is not possible, replace the glue.

**5.7** Carefully lift the ribbon from the card end applying a little back tension until the matrix has pulled from the fibers. Continue to slowly lift the fibers away from the tape section to remove the length of matrix from that side of the ribbon.



**NOTE:** If using a 12 fiber sub-unit of a 24 fiber ribbon, the first application will only remove the outer layer of the matrix. Steps 5.05 through 5.07 should be performed a second time with the glue drop placed at the same point on the ribbon to remove the inner matrix.

**NOTE:** For accessing fibers in live ribbons, maintain a shallow pull angle (<math><30^\circ</math>) with tension and slide a pen or pencil under the ribbon to break the glue bond. This will reduce any attenuation increase.

**5.8** Flip the ribbon and repeat steps 5.04 through 5.07 to remove matrix from the other side for the same region.

**5.9** To access longer lengths of ribbon, simply replace the ribbon on a section of clean tape. Gluing is not necessary to initiate the peel a second time if the free end of matrix is placed on the tape.

**5.10** Fibers are clean and ready for splicing or re-ribbonizing with ribbon arrangement tool.