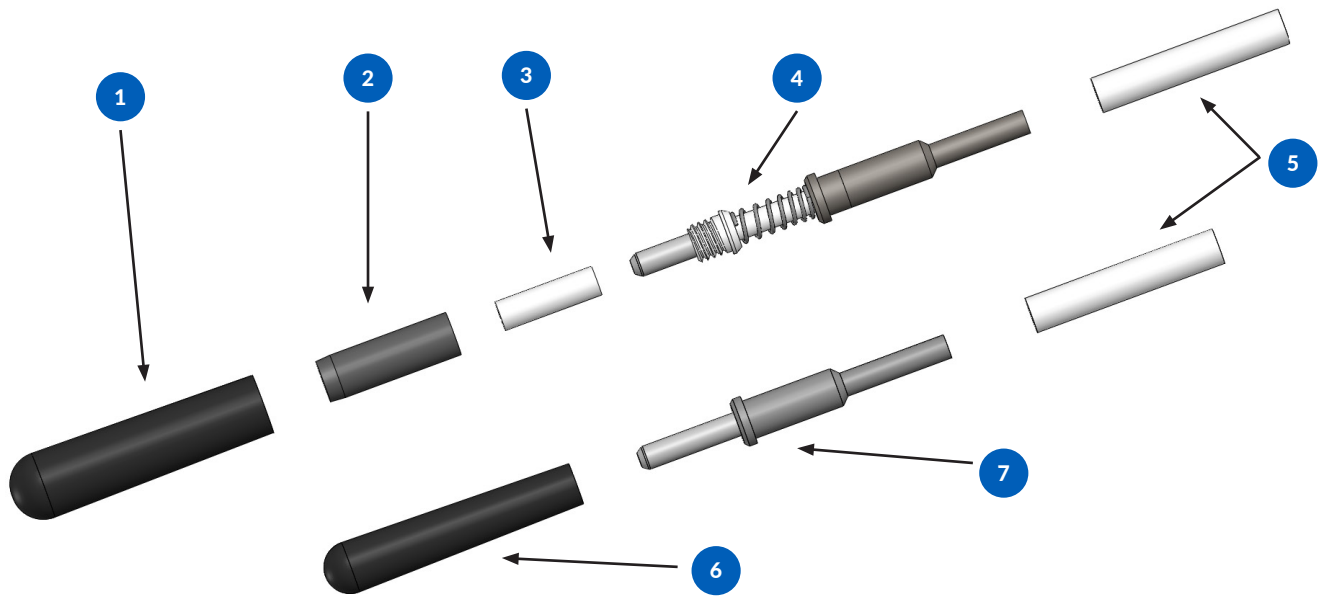


TERMINATION WORK INSTRUCTIONS
Amphe-Lite Fiber Optic Termini



Part 1: Package Contents



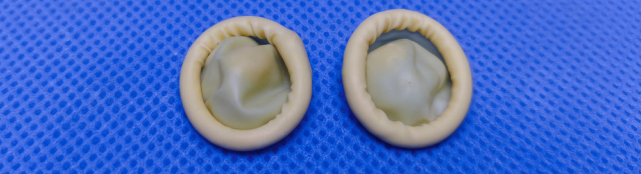





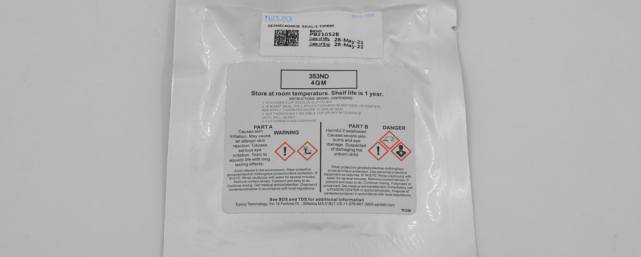
Socket Terminus Part Number: Socket






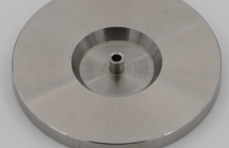

1. Protection Cap
2. Sleeve Shroud
3. Ceramic Sleeve
4. Socket Fiber Terminus
Socket

Pin Terminus Part Number: Pin

5. Heat Shrink Tube
6. Protection Cap
7. Pin Fiber Terminus

Part 2: Recommended Equipment

| Name | Picture |
|------------------------------------------------|--------------------------------------------------------------------------------------|
| Anti-Static Finger Cover (Customer Prepare) |  |
| Cutting Pliers |  |
| Kevlar Scissors |  |
| Fiber Scribe |  |
| Wire Stripper |  |
| MEK (Customer Prepare) | |
| ISO Propanol (Customer Prepare) | |
| Dust-free paper |  |
| 353ND Epoxy |  |

| | |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <p>Syringe with 0.035 Max. Dia. Needle</p> |  |
| <p>Centrifuge or Vacuum Machine (Customer Prepare)</p> |  |
| <p>Hot Gun, Air Flow Temp 300-400°C</p> |  |
| <p>Cure Oven</p> |  |
| <p>Distilled Water (Customer Prepare)</p> | |
| <p>90° Durometer Pad</p> |  |
| <p>Polish Tool</p> |  |
| <p>Polish Film</p> | <p>See Figure 6-2</p> |
| <p>Microscope, 100 Power or Greater (Customer Prepare)</p> |  |

Part 3: Cable Preparation/Termination

Step 1: Slide heat shrink tube back onto the simplex cable.

The location of the heat shrink tube can be free.

- Reference cable jacket diameter 1.6-2.0mm



Attention: If you use a different cable specification please contact Amphenol to confirm.

Step 2: Wire Cutting and Stripping.

Strip cable to indicated dimension in figure 2-2

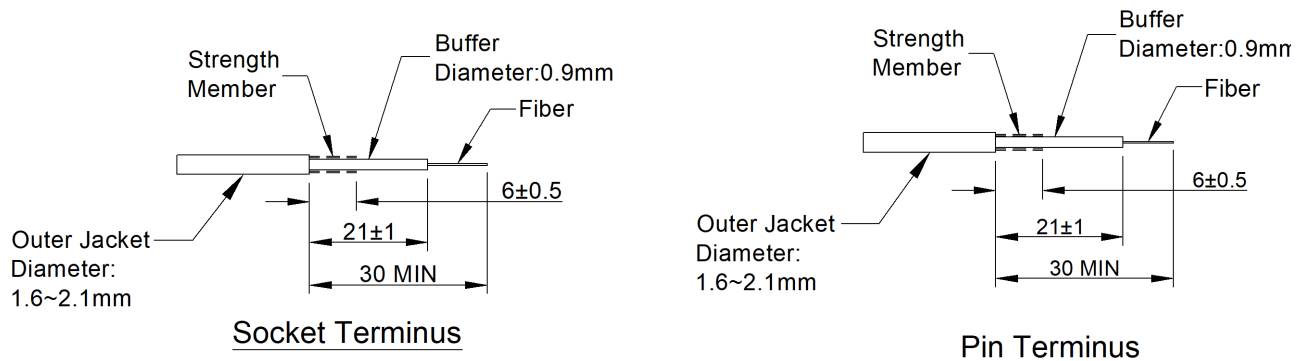


Figure 3-1 (Not Drawn to Scale)

» Cut wire

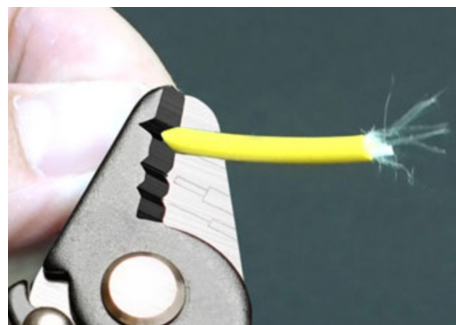


Figure 3-2 (Cut Wire)

- » Cut strength member

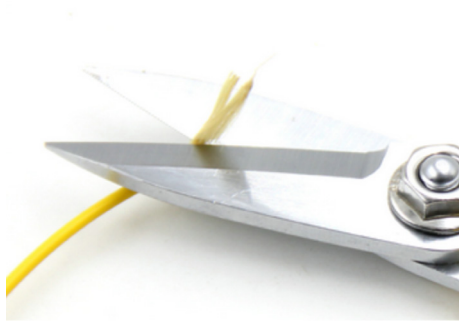


Figure 3-3 (Cut strength member)

- » Strip buffer

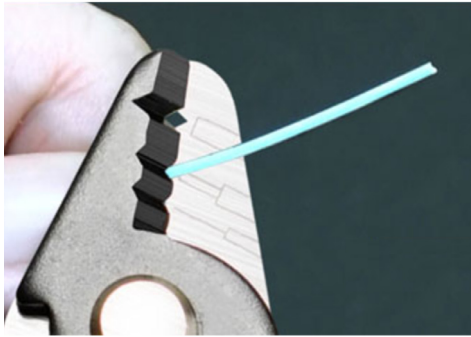


Figure 3-4 (Strip buffer)

- » Strip coating



Figure 3-5 (Strip coating)

Step 3: Wipe off bare fiber with MEK or equivalent immediately after stripping.



Attention: Uncoated optical fiber can degrade when exposed to air. Termination must be done immediately within 10 minutes.

Step 4: Prepare epoxy according to manufacturer's instructions.

Step 5: Fill syringe with epoxy and eliminate all air bubbles.

Choose a syringe with 0.035"(0.9mm) max dia. needle



Figure 3-6



Attention: Choose proper equipment to eliminate air bubble fully.

Step 6: Insert syringe into rear of terminus and fill ceramix ferrule with epoxy until a small bead of epoxy is present at the tip of the ferrule.

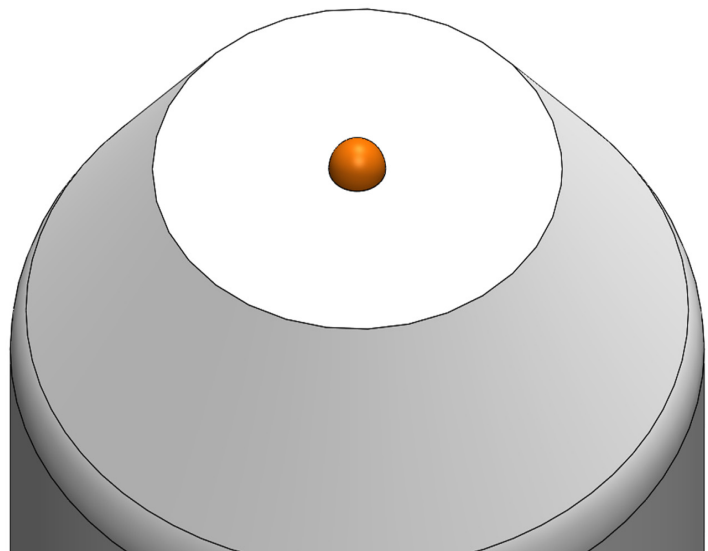


Figure 3-7

Step 7: Add epoxy to outside rear end of terminus for approximately 4mm.

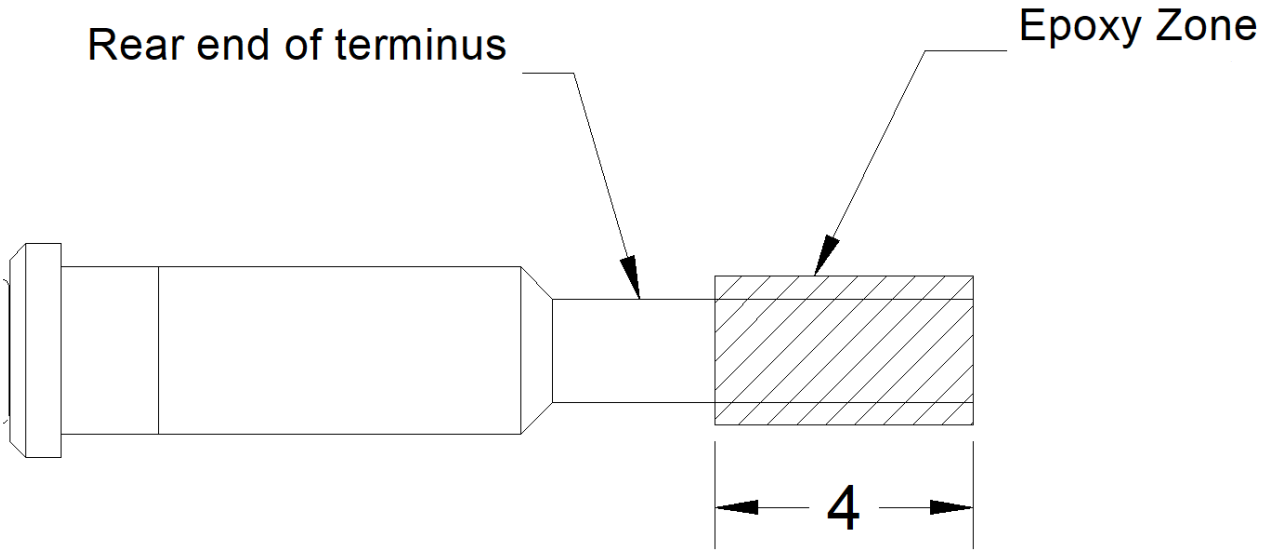


Figure 3-8

Step 8: Carefully push stripped fiber into terminus until it stops. Bare fiber should be protruding out the front of terminus. Wipe off any excess epoxy that may emerge from the rear of terminus due to insertion of fiber.

Fiber protrude out of terminus

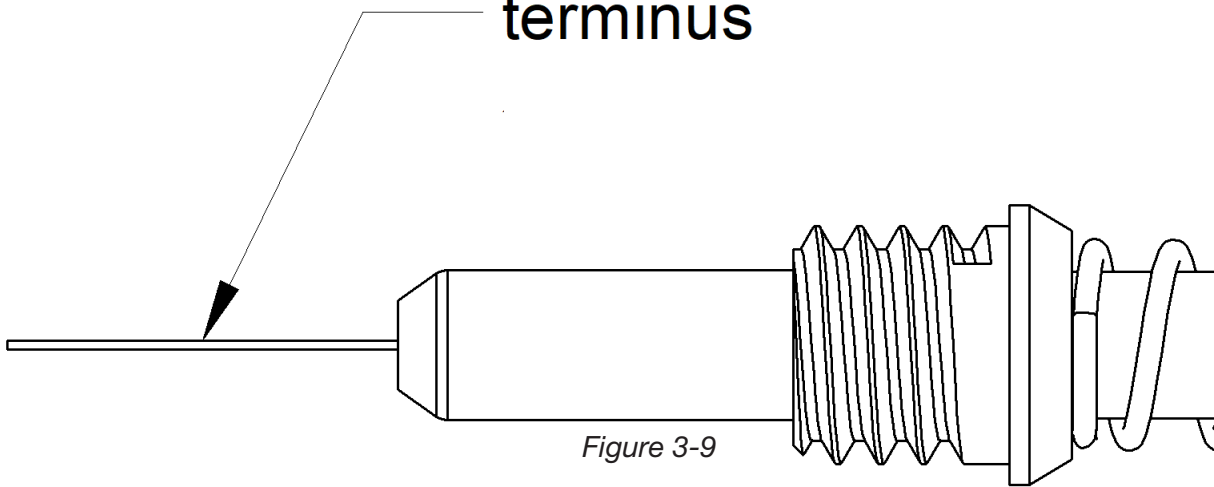


Figure 3-9

Step 9: Add epoxy to end of outer jacket of cable for approximately 4mm to ensure sealing to shrink tube. Evenly distribute strength member over rear body of terminus. the Distance between outer jacket of cable with rear body of terminus is approximately 0-1.5mm. Slide shrink tube up the cable jacket, and position over terminus rear body and strength member.

- » Add epoxy to end of outer jacket of cable for approximately 4mm

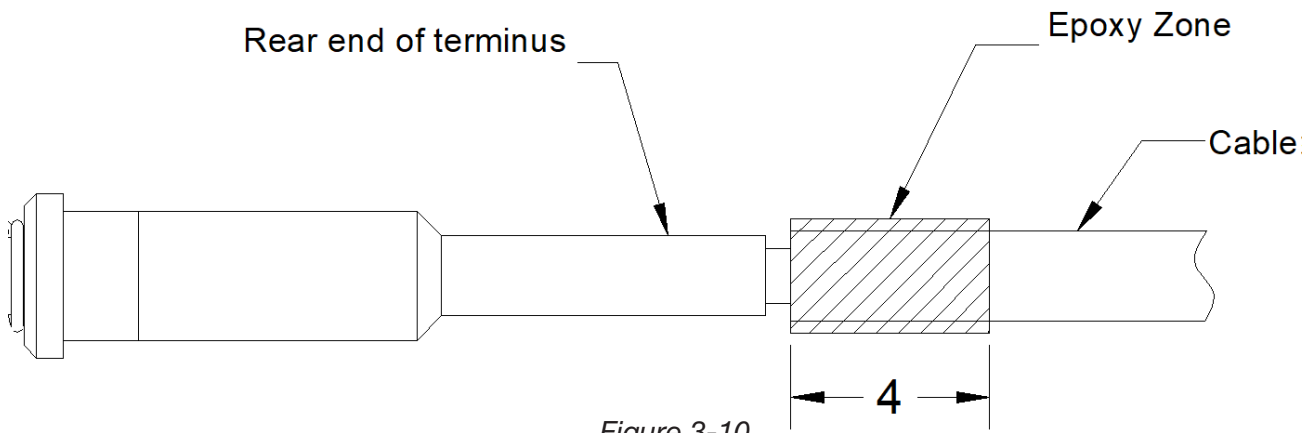


Figure 3-10

- » Evenly distribute strength member over rear body of terminus, the distance between outer jacket of cable with rear body of terminus is approximately 0~1.5mm

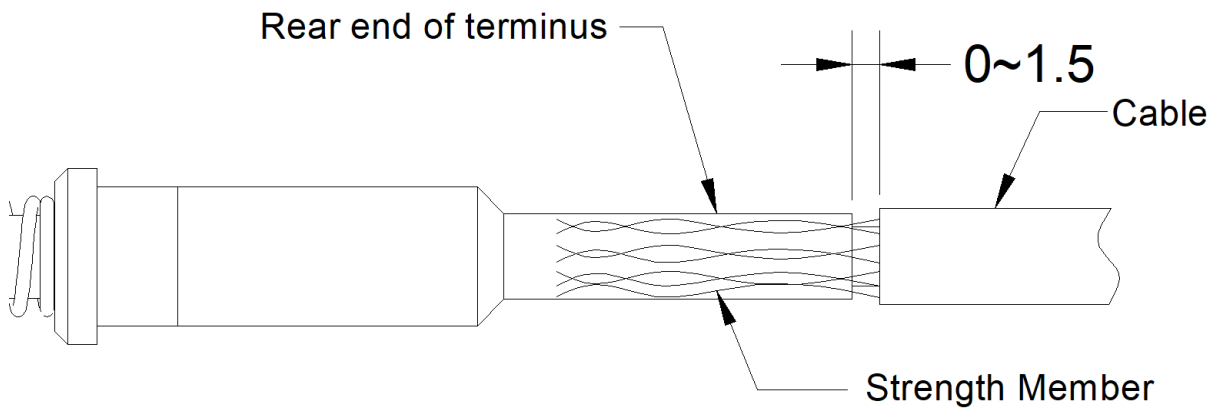


Figure 3-11

- » Slide shrink tube up the cable jacket, and position over terminus rear body and strength member.

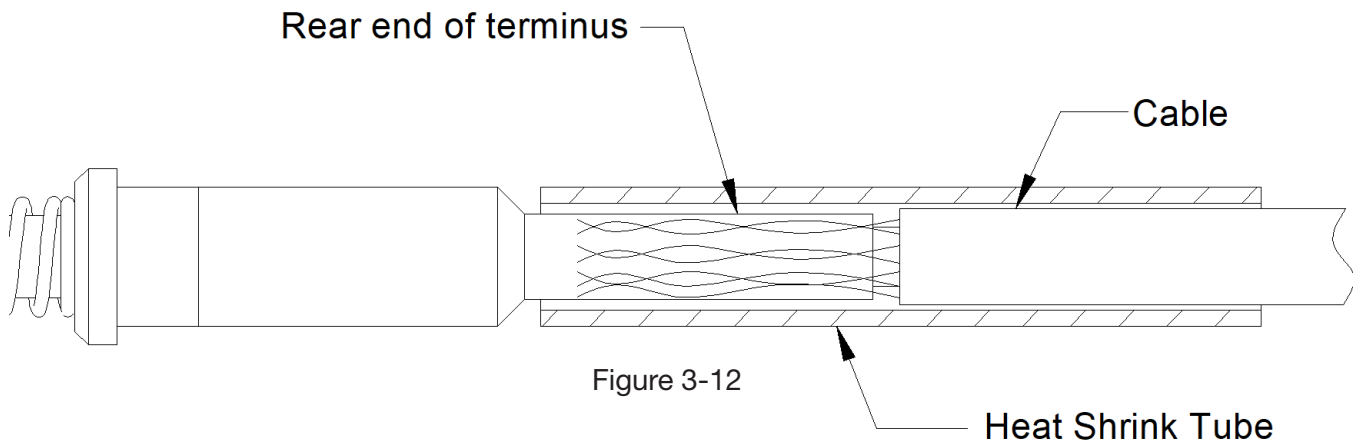


Figure 3-12

Part 4: Epoxy Curing

Step 1: Shrink tube using heat gun until epoxy turns a dark amber color. Once fully cured, remove heat gun immediately.

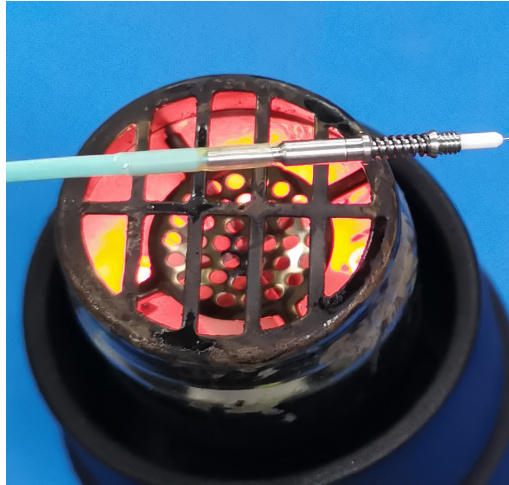


Figure 4-1 (shrink tube)

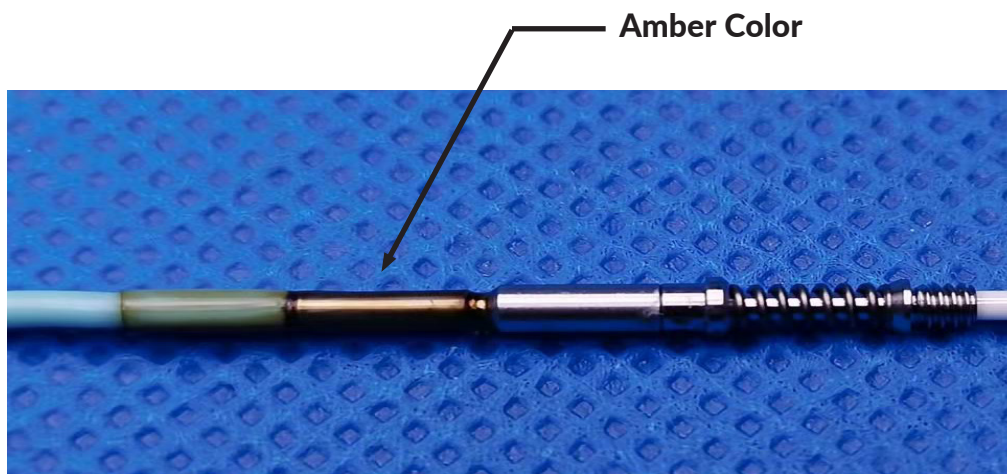


Figure 4-2 (epoxy turns to amber color)



Attention: Do not apply excessive heat to outer jacket of cable.

Step 2: Using curing oven to cure epoxy, carefully position terminated fiber into a cavity of curing block.

Choose the appropriate curing temperature and duration time according to the curing oven performance.

| Temperature (C) | Duration(minutes) |
|-----------------|-------------------|
| 60 | 90 |
| 80 | 15 |
| 100 | 5 |



Figure 4-3 (position terminus into curing oven)



Attention 1: Care must be taken not to break protruded fiber.

Attention 2: If not using 353ND epoxy, please cure epoxy according to manufacturers instructions.

Part 5: Fiber Scribe

Step 1: Hold terminus with fiber pointing straight up, and lightly scribe glass fiber approximately 2.5mm above epoxy bead or ceramic.

Carefully discard piece of fiber.



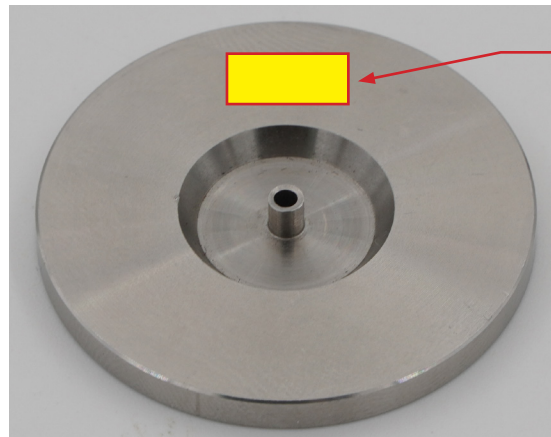
Figure 5-1



Attention: Extreme care must be taken when cleaving fiber to ensure fiber is not recessed in ceramic.

Part 6: Polishing

Step 1: Determine which termini are to be polished first. Use appropriate terminus polish tool.



Socket Terminus polish tool:
 Tool-766756-16S
 Pin Terminus polish tool
 Tool-766756-16P

Figure 6-1

Step 2: Polish terminus according to procedure list below.

| Polishing Steps for domed | | | | |
|---------------------------|----------------------------|------------------|-----------------|-----------------|
| Step | Lapping Film grit size | Polishing Pad | # of Figure 8's | Lubricant |
| 1 | 15 micron Silicone Carbide | 90 Durometer Pad | 20 | No |
| 2 | 3 micron Diamond | | 10 | Distilled Water |
| 3 | 1 micron Diamond | | 10 | |
| 4 | 0.5 micron Diamond | | 5 | |
| 5 | Ultra Fine | | 5 | |

Figure 6-2

- » Wipe distilled water onto back of polishing film and place onto rubber pad.
- » Clean polishing film, tool, and tip of terminus using isopropyl alcohol after each step.
- » Dry all parts using wipes or compressed air.



Figure 6-3 (Recommended Wipe)

- » Using a small figure "8" motion polish terminus.

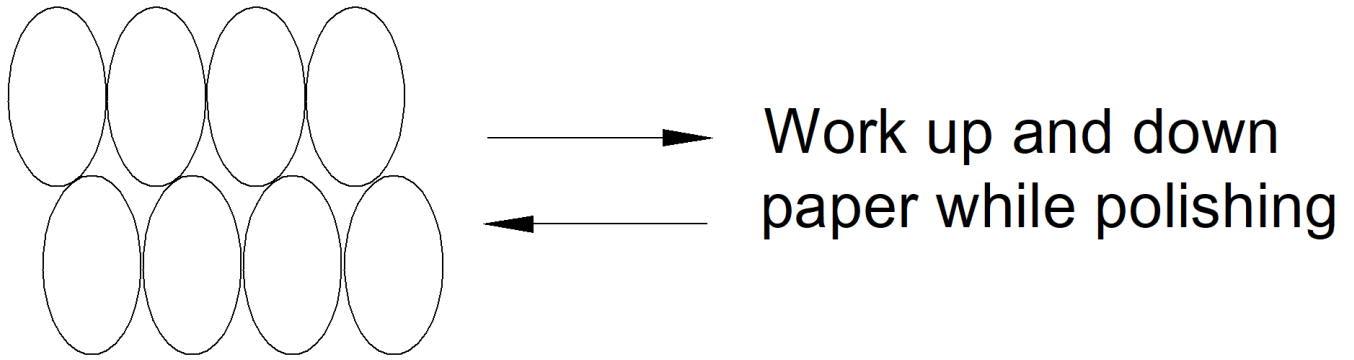


Figure 6-4

- » Visually inspect terminus tip using microscope to prevent over polishing after each polishing step.

Step 3: Inspect end of optical fiber for desired finish using a microscope.



Figure 6-5 (inspect using microscope)

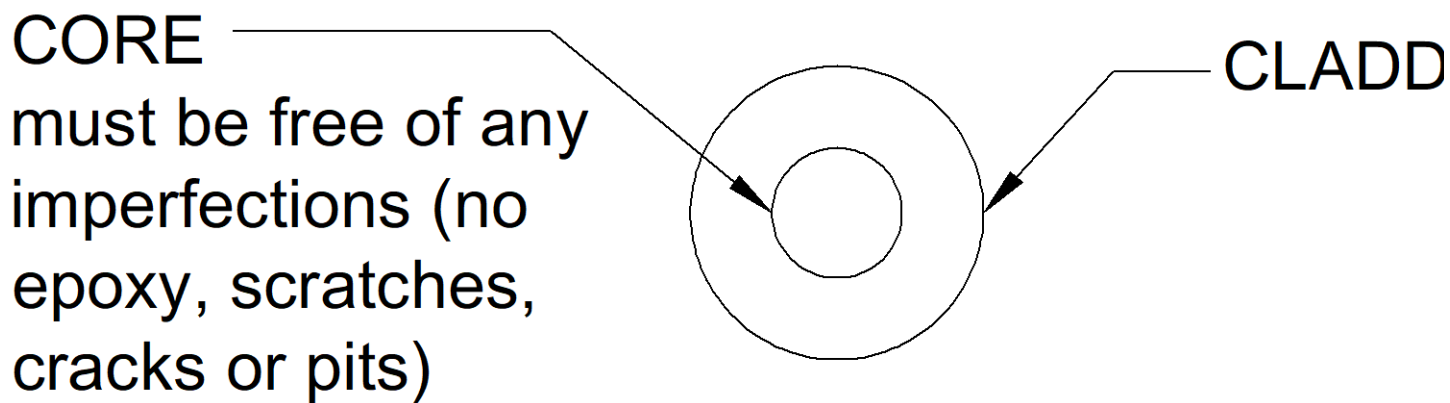


Figure 6-6 (acceptable finish)

Step 4: Thoroughly clean termini and tool. Push on protection cap, when supplied.



Figure 6-7 (sock terminus with protection cap)

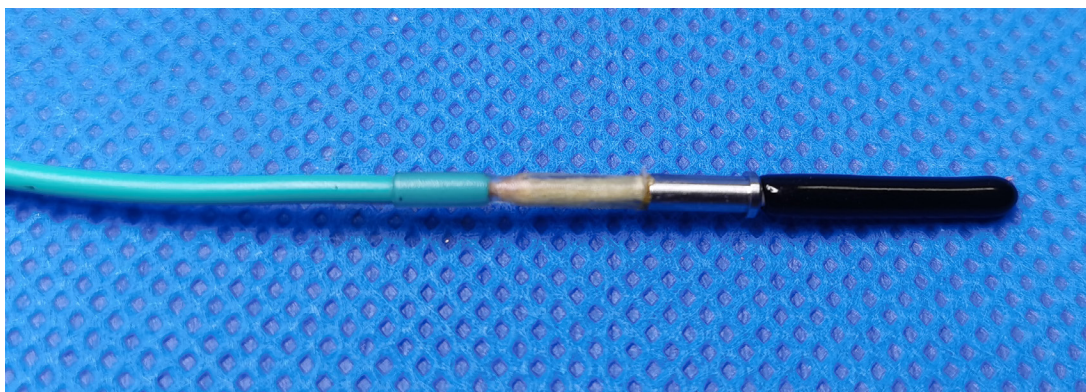


Figure 6-8 (Pin terminus with protection cap)