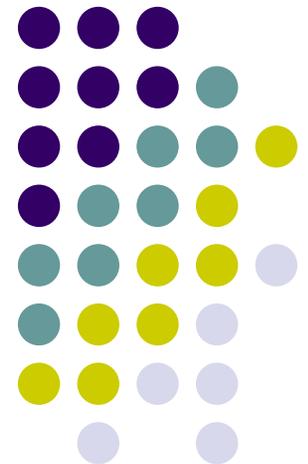


# WLS Fiber Pigtails

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University of Rochester  
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T2K Collaboration Meeting





# Ferrules

- We have a sample of ferrules from CSU
  - At some point we will need the full sample
- The nipple seems to be the correct length
- The techs have glued short fibers in 4 ferrules
  - Not much epoxy flowed onto the nipple, but it looks like enough epoxy surrounded the fibers that they can be polished
- However, the ferrules are too loose in the collets
  - Hence, we will not be able to polish them



# Ferrules

- We will make a trip to FiberFin on Monday
  - FiberFin will prepare the machine to polish the ferrules
  - In previous times, we got 2 collets
  - Don't know when we will get the machine back
  - the last time it took 1 week to get the machine back
  - But this is over Christmas
- The fibers are prepared
- Probably start the production after new year.
- If there are no problems, we should be able to ship the fibers after 2-3 weeks



# Production

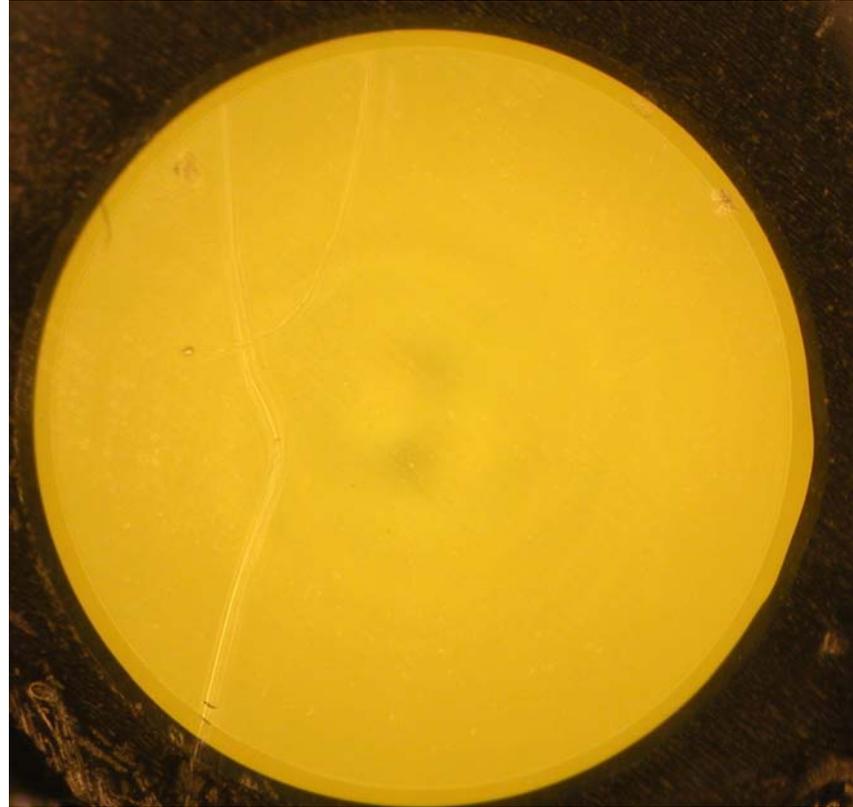
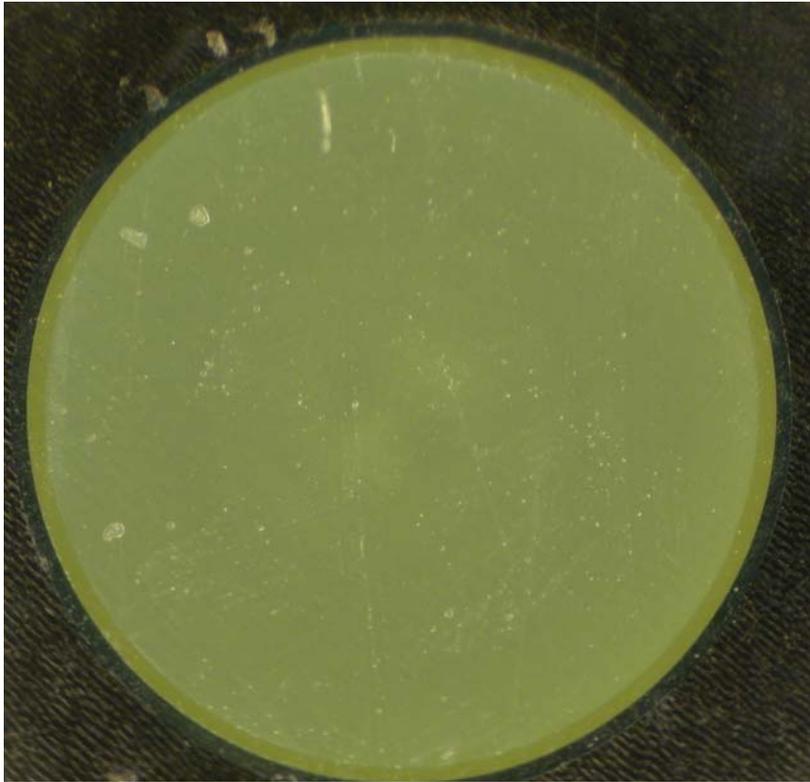
- Quote from Kuraray for 12356 fiber + 70 QC fiber
  - 5988 2407mm fiber
  - 6368 2267 mm fibers
  - 70 3200 mm qc fibers
- 80.5 K
- From MINERvA it usually takes roughly 6 weeks to get the fibers
  - But this is over Christmas & Japan shuts down over Christmas
  - Hence, they should be purchased as soon as possible.



# Mirroring

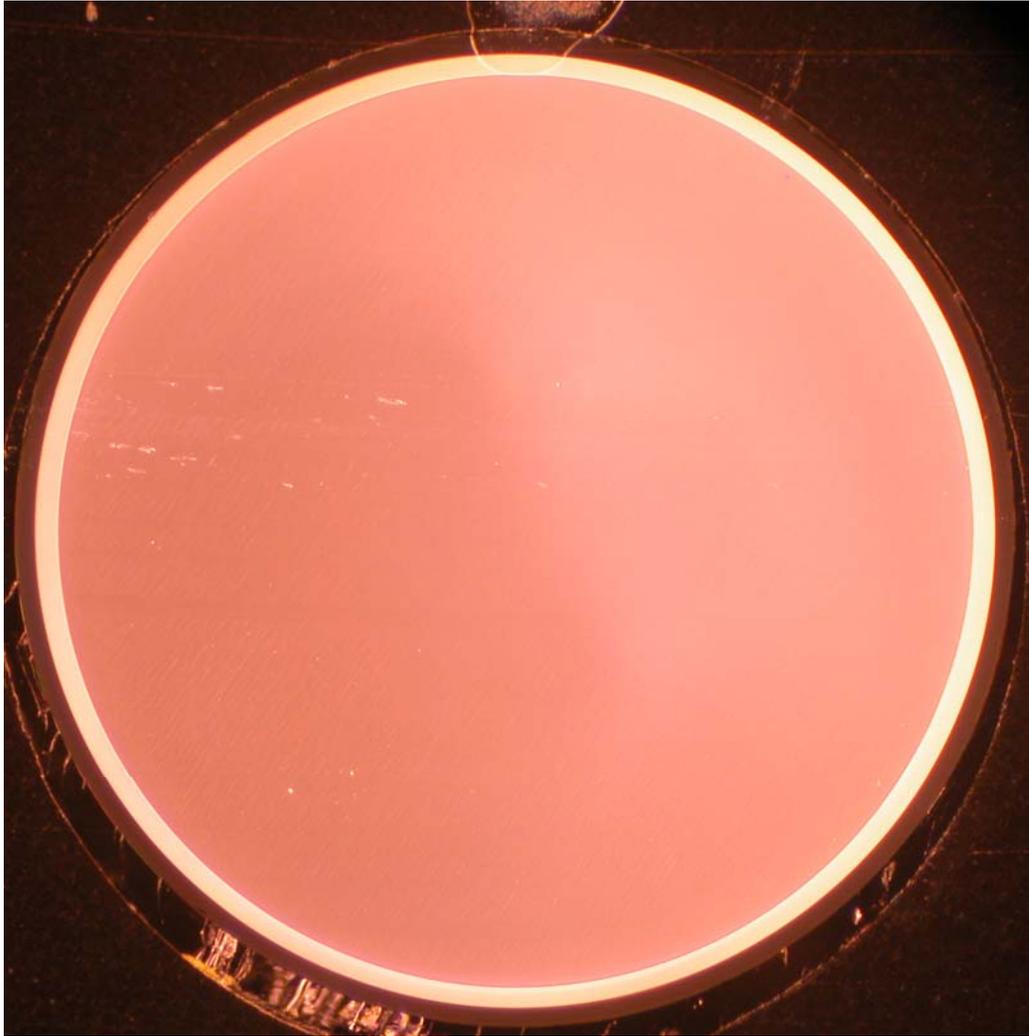
- FNAL has given a mirroring estimate of 70.1K
  - The person giving this estimate feels that the cost will be this number or below.
  - The cost does not include shipping out of FNAL
  - She has a good understanding of her production processes
  - She feels that she can finish this job in about 4-5 months
  - She has to determine her work load
    - She tries to have enough work to keep her crew busy
    - If one wants to mirror fiber FNAL should be informed soon, at least informally
  - In addition, because of how production is taking place in one of the experiments that needs her mirroring, there is a lull in their need for mirrored fiber
    - If t2k needs mirrored fibers, they should try to fill that lull, as the lull will not be indefinite.

# Shipment of 10 Pigtails to Stony Brook



- Picture of 2 of the polishes of the fibers that were send to Stony Brook

# FiberFin Polisher



- We use MINERvA ferrules to test the polishing of the FiberFin polisher
- Paul at Fiberfin setup the polisher for us.
- I think MINERvA ferrules are Delrin with carbon black.
- Note, this is not the FiberFin polisher we would use, that is shown on the previous page

