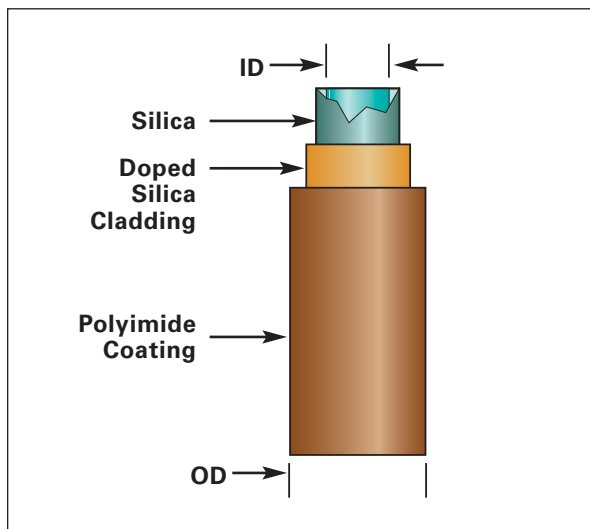
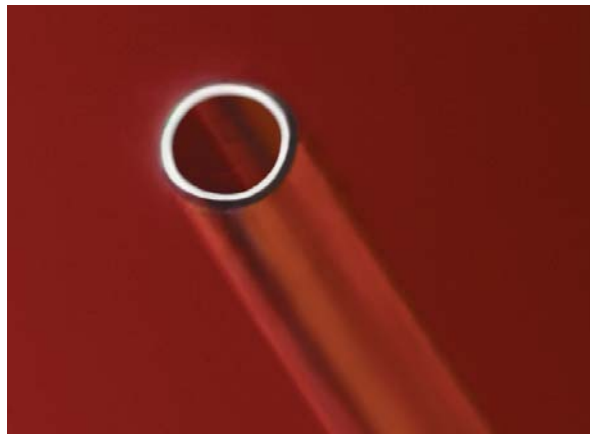


# Light Guiding Flexible Fused Silica Capillary Tubing

- **LTSP: Polyimide Coated Light Guiding Capillary**

## Potential Applications

- **Unique sample detection & analysis**
  - Increased path-length detection cells
  - Evanescent wave optics
  - Guide fluorescent emissions from capillary tip
  - Study capillary surface chemistries
  - Monitor emissions from ligands bound to capillary internal surface
- **UV transmission inside of capillary**
  - Initiate light-activated chemistries
  - Cure UV adhesives
  - Detect light producing reactions
- **Chromatographic columns for  $\mu$ -LC**
  - New technologies for improved column durability after frit formation
  - Windows like standard capillary for on-column detection methods
- **Optically monitor fluids**
  - Before, during or after delivery/sampling



## LTSP Characteristics

- Standard polyimide coating
- Synthetic fused silica
- Doped silica cladding
- 100% proof tested at 100kpsi\*\*
- Operation up to 350°C
- Custom sizes available

Product Descriptor	ID $\mu$ m	Total $\mu$ m	CT* $\mu$ m
LTSP050375	050	363	20
LTSP150375	150	363	20
LTSP250350	250	360	18

\* CT is the coating thickness; value is nominal  
 \*\* Tensile strength



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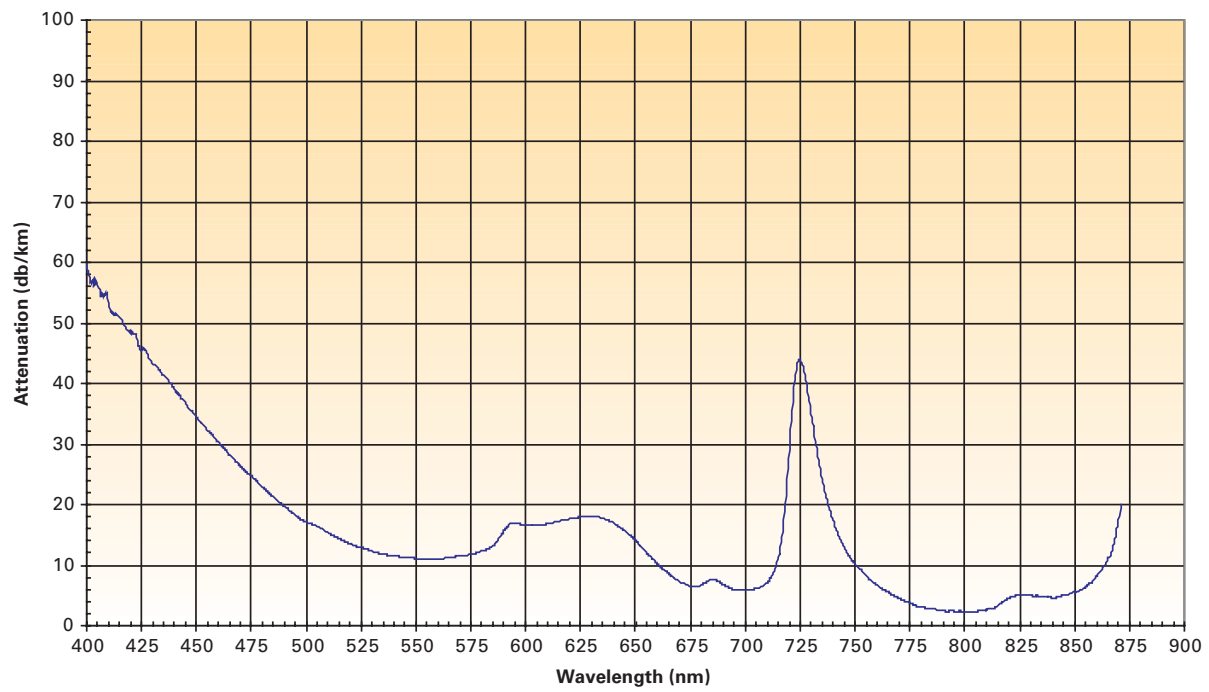
- Flexible Capillary
- Multimode Optical Fiber
- Specialty Assemblies
- Micro-Components

# Light Guiding Flexible Fused Silica Capillary Tubing

- LTSP: Polyimide Coated Light Guiding Capillary

## Optical Transmission

Preliminary data from LTSP150375  
Standard cut-back attenuation on 253m segment



## Annular Specifications

Annular core specifications are not finalized at this time.

Preliminary data indicates a minimum clad thickness of 9µm.

## Interfacing and Handling

Cleaves like standard capillary. Optical quality cleaving or polishing required for optimum light input and output.

Polymicro's FVP300330370 optical fiber closely matches the tubing OD of the initial products. This fiber offers a close match between the tubing annular core and optical fiber core. Smaller optical fiber can

be used if spacing is adjusted to optimize light launch into the tubing. High-OH fiber is recommended; ask for our FV-Series optical fiber.

Contact Polymicro directly for a quotation on custom light guiding capillary assemblies. Please include a drawing or sketch of your proposed assembly.

Simple "T" style fittings have been used to make connections.

### • Special Note

Depending on the substance(s) introduced to the capillary interior, the light guiding properties can be modified significantly.



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