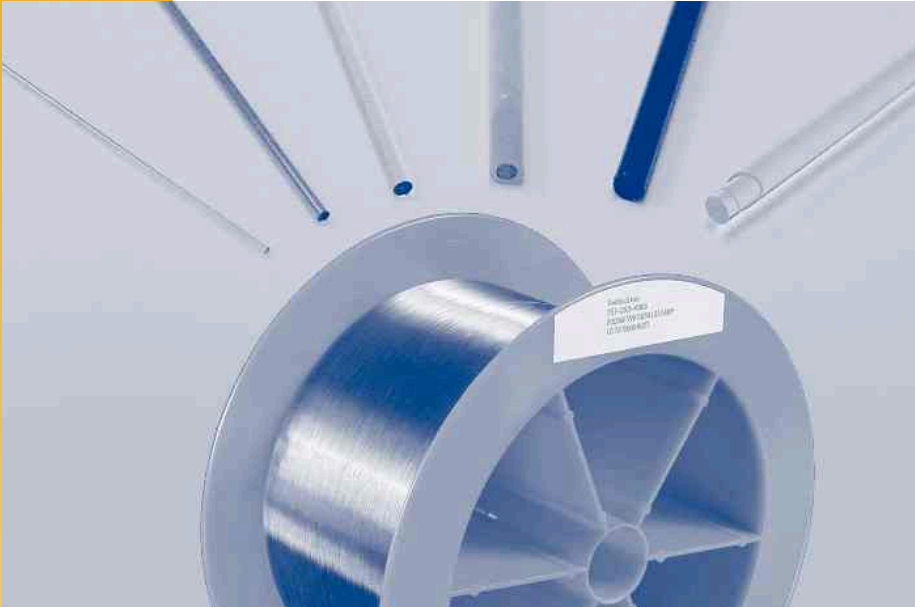


## UV & Vis/NIR Grade PCS Silica Fiberoptics



### DESCRIPTION

PCS fiber was essentially one of the first fibers developed back in the early days of fiber optics at what was then Bell Labs. This is a silica core material, which is available in the high OH- (UV/Vis) or low OH- (Vis/NIR) variety but the core is clad with a polymer (either silicone or a proprietary fluoropolymer) instead of doped silica (which is found in the all silica varieties).

Cladding with these polymers yields a slight increase in mechanical strength for the fluoropolymer version and a higher NA which allows more

light gathering ability. The silicone version would be the only version really suited for UV transmission whereas the fluoropolymer version would be more appropriate for Vis/NIR applications.

The internal transmission of these fibers is not as high as the all silica versions but they can be acquired at a slightly reduced cost and with the higher NA, these fibers can be suited to various high angular field systems and applications.

### APPLICATIONS

- Spectroscopy
- Sensors
- Light piping
- Medical
- General bundles and arrays

### FEATURES

- Step index profile
- Silica core/Polymer clad
- 0.37 to 0.39 NA
- -40°C to +100°C operation
- High core to clad ratio
- Transmits from 200nm to 2400nm

# UV & Vis/NIR Grade PCS Silica Fiberoptics

## CHARACTERISTICS (Typical)

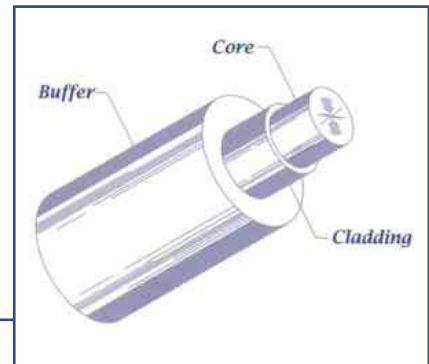
- 0.37NA (21.7 Degree 1/2 Angle) nominal
- 0.39NA (22.9 Degree 1/2 Angle) nominal
- Core/clad diameters +/- 2%
- Jacket diameter +/- 5%
- Long term bend radius – 300 times core diameter
- Proof tested
- Operating temperature to 40° to 100°C
- Acrylate jacketing is standard.

## NOTES

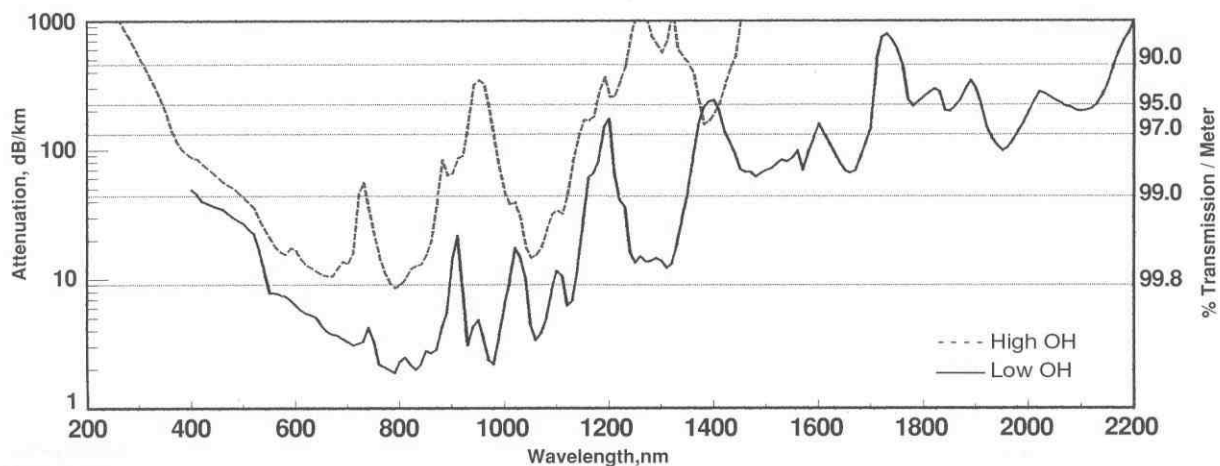
- Other sizes, NAs, jacketing available.
- The curve depicts what can be expected from typical lots of fiber but actual results may vary somewhat.

### Standard Sizes in Core/Clad/Jacketing (µm)

	PN - UV Grade	PN - Vis/NIR
100/200/270	212420-0100	222420-0100
200/300/370	212420-0200	222420-0200
210/230/270	212420-0210	222420-0210
400/500/600	212420-0400	222420-0400
600/700/800	212420-0600	222420-0600
1000/1100/1200	212420-1000	222420-1000



Typical Spectral Response



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