



# MedPOF®

## Perfluorinated plastic fiber for medical photonics

MedPOF® is a next-generation plastic fiber, offering superior safety, ductility and transparency for medical applications. Unlike brittle glass fibers, Chromis MedPOF® perfluorinated plastic optical fiber provides protection and flexibility for demanding handling and placement needs in medical applications. Chromis MedPOF® overcomes the shortcomings of other plastic fibers, presenting low attenuation, IR-transparent perfluorinated polymer materials, and exacting geometric tolerances.

### Graded-index perfluorinated POF: combining the best of the glass fiber and plastic fiber worlds

MedPOF® achieves breakthrough optical performance that surpasses traditional plastic optical fibers. MedPOF® is multilayered to optimize performance. The layers are extruded to outstanding tolerances. The resulting fiber is biocompatible and sterilizable. MedPOF® complies with USP Biological Reactivity Tests in vivo—USP Class VI—so designers are free to target the sterile field and invasive applications. MedPOF® can be sterilized by conventional EtO or Radiation techniques.

### Medical Sensing

MedPOF® is transparent for today's and tomorrow's wavelengths for direct or spectroscopic sensing techniques and compatible with extrinsic or intrinsic optical techniques. MedPOF® enables detection of gamma, e-beam, x-ray and UV-IR radiation levels.

### Medical Illumination

MedPOF® fibers have a 5mm long-term bend radii for endoscopic illumination and flexible image bundles. Also ideal for catheter placement indicators, including intrinsic and extrinsic detection.

### Medical Power Delivery

Chromis MedPOF® is well suited for use in low power ophthalmic and photodynamic therapy probes. It can be terminated using simple, inexpensive tools and polishes in seconds to a smooth, low-loss power-friendly end-face.



#### Product Specifications

##### Transmission Characteristics

Attenuation at 850 nm (dB/km)	≤ 60
Attenuation at 1300 nm (dB/km)	≤ 60
Numerical aperture	0.18 ± 0.015

##### Physical Characteristics

Core diameter (μm)	50,120,200 ± 10
Over-cladding diameter (μm)	490,750 ± 10
Core to over-cladding concentricity (μm)	≤ 10

#### MedPOF Available Forms

**Fiber Core Geometries** Available up to 500 μm

**Cable Jackets** Medical grade rubber, PVC, PE, PP and Fluoropolymers

**Assemblies** Custom or standard proximal and distal configurations. Let us help you create the total solution.