

CeramOptec®

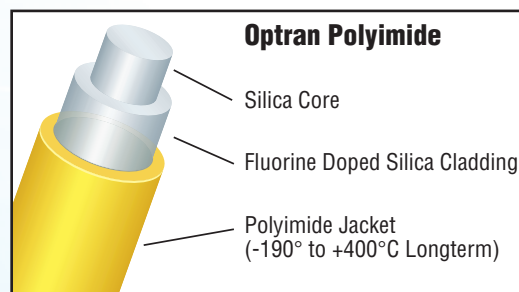
Innovative Fiber Optics...Every Step of the Way™



CeramOptec's polyimide coated fibers are ideal for applications requiring high temperature capability. While acrylate, nylon, and Tefzel® coatings start to deteriorate between 100° and 250°C, CeramOptec's unique polyimide coated fibers can withstand temperatures up to 400°C. In addition, this thin jacketing is ideal for use in bundles and supports spectral transmission from 160 to 2500 nm.

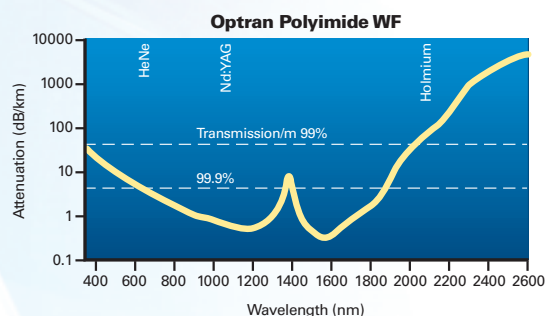
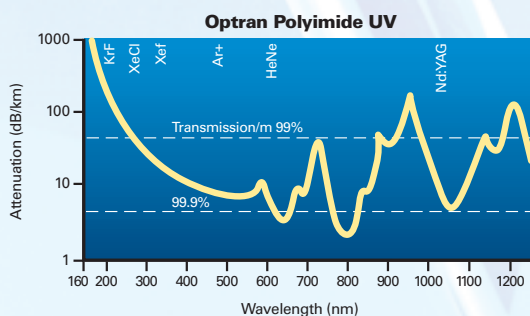
Features

- Broad temperature range: -190°C to +400°C (-310°F to +752°F)
- Thin jacket diameter—best fiber for use in bundles
- High laser damage resistance
- High core to clad ratio options
- Biocompatible materials
- Sterilized by ETO and other methods
- Manufactured at GMP and ISO 9001 compliant facility
- Radiation resistant: 10⁹ rad. total
- High transmission in UV / VIS / NIR
- Can withstand vacuum environments (10⁻⁹ torr)
- 10 Atmospheres
- Resistant to fluids
- Polyimide prevents cladding modes



Applications

- Industrial / Scientific
 - Spectroscopy
 - Sensors
 - UV photolithography
 - Laser welding / soldering / marking
 - Laser delivery
 - Analytical instruments
 - Medical
 - Medical diagnostics
 - Laser delivery
- Laser diode pigtailling
Pyrometry
Semiconductor capital equipment
Thomson scattering
Nuclear plasma diagnostics
- Photodynamic therapy



Properties

- Step index profile
- Pure silica core
- Available NAs:
 - Low NA – 0.12 ± 0.02
 - Standard NA – 0.22 ± 0.02
 - Optran Plus™ 0.28 – 0.28 ± 0.02
 - Optran Plus™ 0.30 – 0.30 ± 0.02
 - Optran Ultra™ 0.37 (Vis / IR) – 0.37 ± 0.02
- Laser damage resistant core transmits 1.3 kW/mm² CW at 1060 nm, up to 10 J, pulsed
- Bend radius:
 - Momentary: 100 x clad radius
 - Long term: 300 x clad radius
- Broad spectral transmission range: 160 to 2500 nm
- Polyimide prevents cladding modes
- Standard proof test: 70 kpsi

Optran Polyimide UV & WF Standard NA (0.22 ± 0.02) Specifications

Product Code	Ø Core (µm) ± 2%	Ø Clad (µm) ± 2%	Ø Jacket (µm) ± 5%	Operating Wavelength (nm)
UV 50/125 P	50	125	150	160 to 1200
UV 90/100 P	90	100	107	160 to 1200*
UV 100/110 P	100	110	125	160 to 1200*
UV 200/220 P	200	220	245	160 to 1200
UV 300/330 P	300	330	355	160 to 1200
UV 400/440 P	400	440	470	160 to 1200
UV 600/660 P	600	660	710	160 to 1200

Product Code	Ø Core (µm) ± 2%	Ø Clad (µm) ± 2%	Ø Jacket (µm) ± 5%	Operating Wavelength (nm)
WF 50/125 P	50	125	150	350 to 2500
WF 90/100 P	90	100	107	350 to 2500*
WF 100/110 P	100	110	125	350 to 2500*
WF 200/220 P	200	220	245	350 to 2500
WF 300/330 P	300	330	355	350 to 2500
WF 400/440 P	400	440	470	350 to 2500
WF 600/660 P	600	660	710	350 to 2500

Note:

Low NA: 0.12 ± 0.02 (Suffix Product Code with "12")
Optran Plus™ 0.28: NA 0.28 ± 0.02 (Suffix Product Code with "28")
Optran Plus™ 0.30: NA 0.30 ± 0.02 (Suffix Product Code with "30")
Optran Ultra™ 0.37 (Vis / IR): NA 0.37 ± 0.02 (Suffix Product Code with "37")
Example: WF 200/220 P 37

Notes:

Custom sizes are available upon request.

*Core / Clad ratio may not support transmission for long wavelengths.

NA 0.12 – 0.37 and other core / clad ratios available upon request.

Additional protective jackets (nylon, Tefzel®) can be extruded over polyimide.

NA is measured at the 95% intensity angle.

CeramOptec strives to ensure the accuracy of all information provided; however, we imply no warranties and disclaim any liability in connection with the use of this information.

Tefzel® is a DuPont registered product.

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Innovative Fiber Optics...Every Step of the Way

CeramOptec was founded in 1986 and today is a global leader in the production of stock and custom silica / silica, plastic-clad silica, and hard polymer-clad silica optical fibers; fused capillary tubing; DPSS lasers; diode modules; and low loss bundles and assemblies for UV, VIS, and IR transmission, medical laser delivery, sensors, plasma fusion, and spectroscopy.

With several facilities worldwide, we are able to provide our customers with local, prompt, and reliable service and products. By maintaining complete control over the entire manufacturing process—from preform manufacturing to finished fiber product—we are able to provide the highest quality control, custom solutions, and competitive pricing to our customers.

Please visit <http://www.ceramoptec.com> for more information.

CeramOptec is a subsidiary of biolitec™ AG.

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