

PMC-C-R&D-UV

Hollow-Core Fiber optimized for 250-330nm



- *Nearly single mode guidance*
- *Low dispersion, low loss*
- *High power and energy handling**
- *Broad spectral coverage*

Physical Properties

Inner core diameter	38 $\mu\text{m} \pm 1$
Outer fiber diameter	240 $\mu\text{m} \pm 3\%$
Fiber coating layer	Double coating

Optical Properties

Center wavelength	266 nm
Attenuation @ 266 nm	<145 dB/km
Dispersion @266 nm	1 ps/nm.km ± 0.5
Transmission band** **Attenuation lower than 200 dB/km for the 250-330nm	80nm
Mode field diameter (1/e ²) @ 266nm	30 $\mu\text{m} \pm 1$

* See *Opt. Express* **22**, no. 9, 10735, 2014

** For *b* definition, see *Opt. Exp.* **21**, no. 23, 28597, 2013



PMC-C-UV

Hollow-Core Fiber optimized for 343-355nm spectral range.



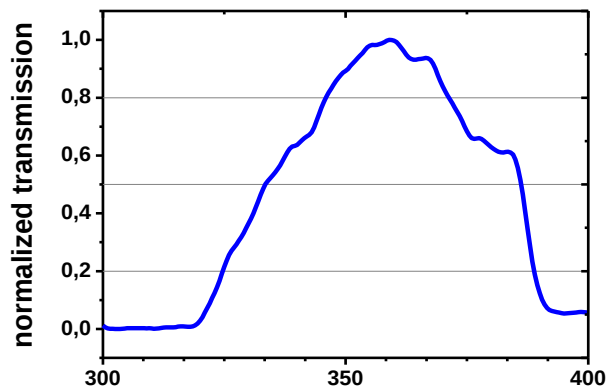
- *Nearly single mode guidance*
- *Low dispersion, low loss*
- *High power and energy handling*
- *Broad spectral coverage*

Physical Properties

Core contour	Hypocycloid
Inner core diameter	25 or 40 μm
Outer fiber diameter	200 or 230 $\mu\text{m} \pm 1\%$
Fiber coating diameter	400 $\mu\text{m} \pm 30 \mu\text{m}$

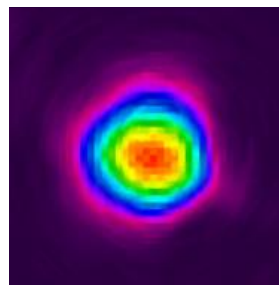
Optical Properties

Attenuation @ 355 nm	<150 dB/km
Attenuation @ 343 nm	<150 dB/km
Dispersion @ 343-355 nm	[-5;5] ps/nm.km

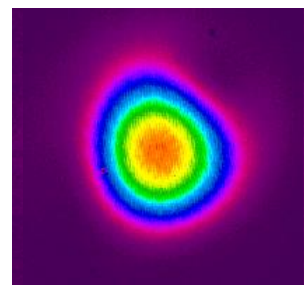


Wavelength (nm)

Typical transmission



Output near field profile



Output far field profile



PMC C UV R&D 375nm

Hollow-Core Fiber for 375nm guidance



- *Nearly single mode guidance*
- *Low dispersion, low loss*
- *High power and energy handling*
- *Broad spectral coverage*

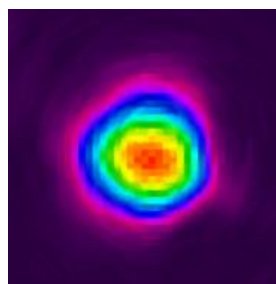
Physical Properties

Core contour	Hypocycloid
Inner core diameter	27 or 36 μ m
Outer fiber diameter	200 or 260 μ m $\pm$ 1%
Fiber coating diameter	570 or 660 μ m $\pm$ 30 μ m

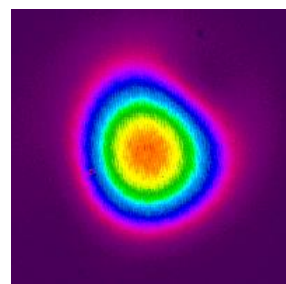
Optical Properties

Attenuation @ 375nm	<100dB/km
Estimated dispersion	[-5;5] ps/nm.km

Near and far Field at 343m



Output near field profile



Output far field profile

