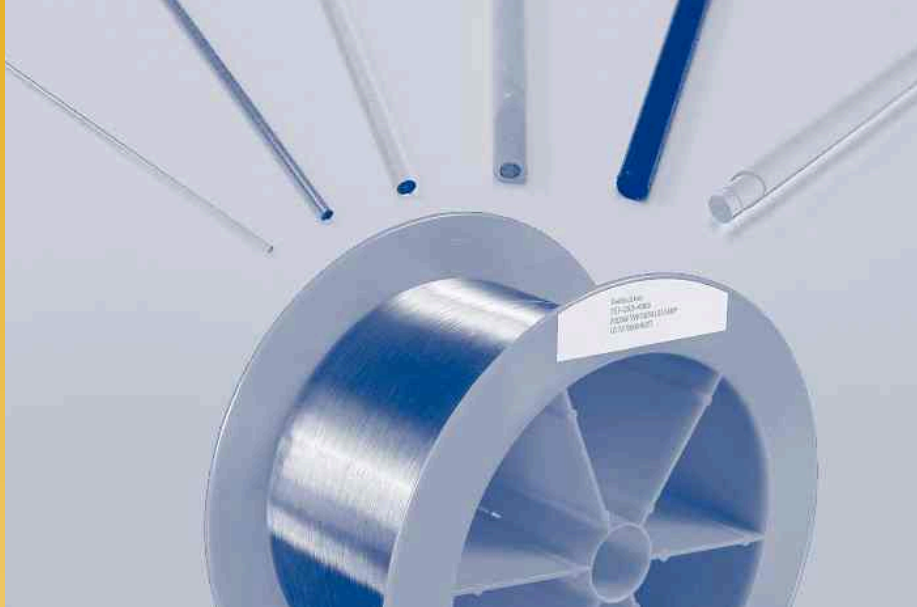


Solarization Resistant All Silica Fiberoptics



DESCRIPTION

Under intense deep UV exposure (usually taken to be below 280nm) silica fibers may exhibit a decrease in transmission. This widely reported but not well understood phenomenon is generally called "solarization". Solarization resistant fibers can be produced using silica preform materials that minimize precursor molecules susceptible to conversion to color centers or absorbing molecules upon irradiation by these highly energetic UV photons. Special attention is

paid to reducing the creation of E' and NBOH absorbing centers which are the two primary contributors to solarization induced losses. When combined with carefully controlled fiber pulling parameters, RoMack's solarization resistant fiber is consistently superior in UV applications where solarization is a concern.

APPLICATIONS

- Deep UV Spectroscopy of all kinds
- Excimer Laser delivery
- Sensors
- UV photolithography
- Laser marking
- Plasma diagnostics
- Flame sensing
- Semiconductor manufacturing equipment
- Thomson scattering
- Raman Spectroscopy
- Pharmaceutical dissolution testing
- Medical diagnostics and photo therapy

FEATURES

- Step index profile
- Silica core/Silica clad
- 0.22 NA
- -190°C to +385°C (and higher) operation possible
- High core to clad ratio
- Wavelength range from 180 to 1100nm
- Laser power - 1.3KW/mm² CW at 1.06µm, up to 10J - Pulsed

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SPECIFICATIONS (Typical)

- 0.22NA (12.7 degree 1/2 angle) +/- 0.02
- Core/clad diameters +/- 2%
- Jacket diameter +/- 5%
- Long term bend radius - 300 times clad diameter
- Proof tested
- Operating temperature to +385 °C
- Polyimide jacket except for 1000µm which is silicone and tefzel

NOTES

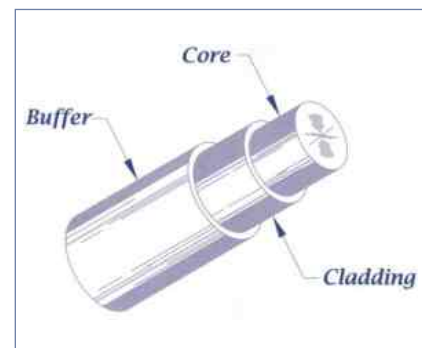
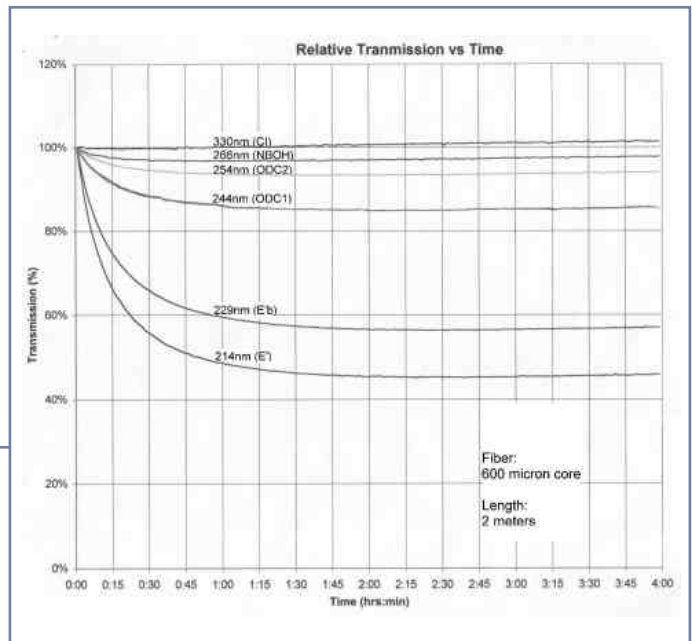
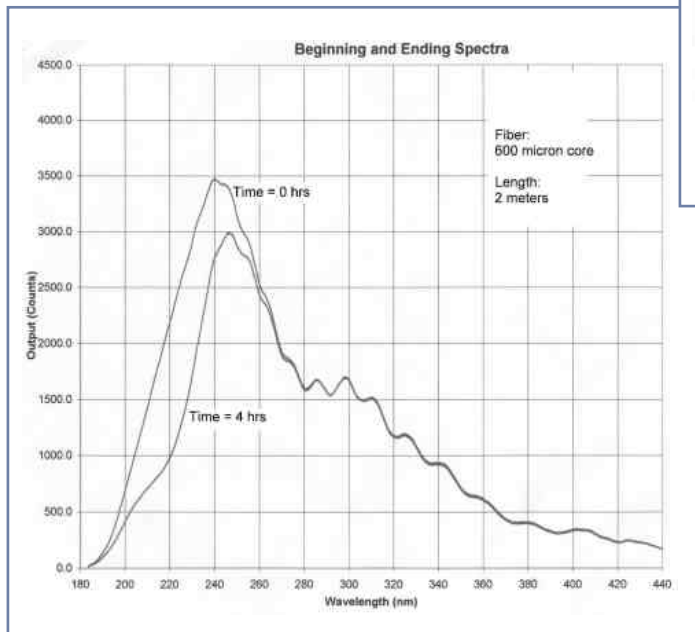
- Other sizes, NAs, jacketing available.
- The curves depict what can be expected from typical lots of fiber but actual results may vary somewhat.

Standard Sizes in Core/Clad/Jacketing (µm)

50/55/66
 100/110/125
 200/220/243
 300/330/365
 320/385/415
 400/440/480
 600/660/710
 1000/1060/1200/1600

Romack PN

231210-0050
 231210-0100
 231210-0200
 231210-0300
 231210-0320
 231210-0400
 231210-0600
 231210-1000



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