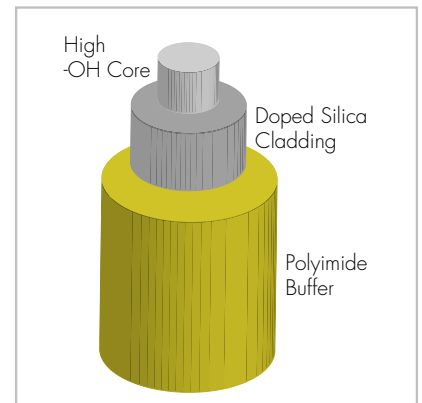


Silica/Silica Optical Fiber FDP-High-OH

Low-solarization Quartz Fibers

For fiber optic applications with light in the far UV range, the solarization effect has to be taken into account: in the optical fiber, the transmission of UV light at different wavelengths is reduced and can lead to inoperability (blindness) in unsuitable fibers.

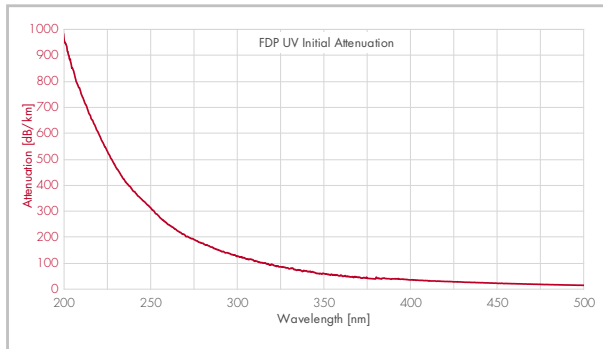
FDP fibers, which are operational even after long periods of exposure to UV radiation, were specially developed for applications between 190 and 325 nm as a solution to the solarization effect.



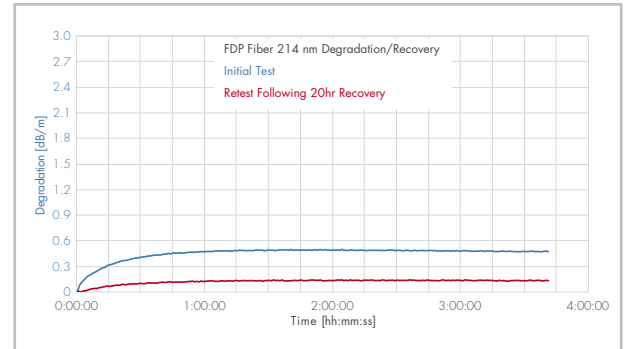
Characteristics

- Step index
- Numerical aperture: 0.22 ± 0.02
full acceptance cone: 25.4 degrees
- Operating wavelength down to 190 nm
- Ultra high UV transmission
- Ultra low UV solarization
- Superior radiation resistance
- Sterilizable and bio-compatible – USP class VI*
- High laser damage threshold
- High -OH silica core, doped silica clad
- Polyimide buffer standard
- Polyimide concentricity < 3 μm
- Custom core sizes, buffers, and assemblies available
- Proof tested to 100 kpsi
- Operating temperature: -65 °C to +250 °C

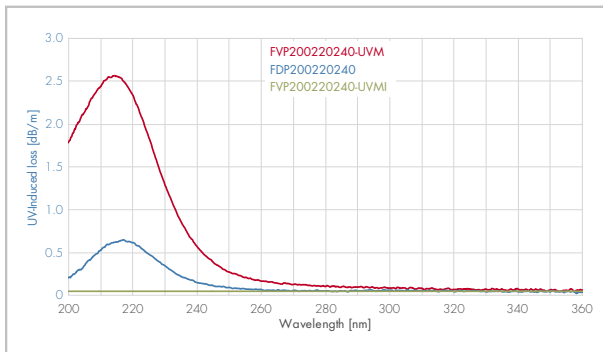
* The end manufacturer is responsible for bio-compatibility and sterilization testing and validation studies.



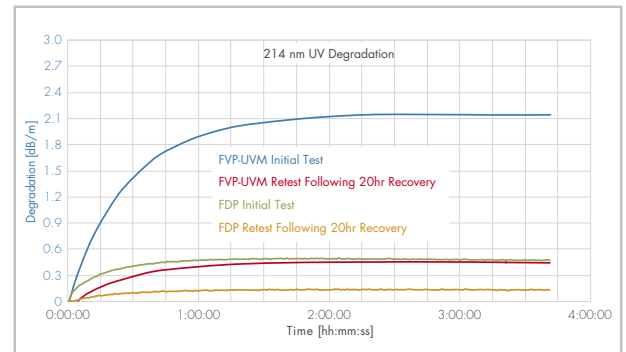
Typical Attenuation of the FDP Series



FDP Fiber 214 nm Degradation and Recovery



Comparison FVP Fiber and FDP Fiber



FDP Fiber 214 nm UV Degradation

Specifications

Fiber Type	FDP100	FDP200	FDP400	FDP600
Core diameter [μm]	100 \pm 4	200 \pm 4	400 \pm 8	600 \pm 10
Cladding diameter [μm]	110 \pm 3	220 \pm 4	440 \pm 9	660 \pm 10
Coating diameter [μm]	124 \pm 3	240 \pm 5	480 \pm 7	710 \pm 10
Temperature area [$^{\circ}\text{C}$]	-65...+250	-65...+250	-65...+250	-65...+250
Numerical aperture	0.22 \pm 0.02	0.22 \pm 0.02	0.22 \pm 0.02	0.22 \pm 0.02
Coating material	Polyimide	Polyimide	Polyimide	Polyimide
Part number	3011301	3011304	3002887	3002377

Note:

The items listed in this table are standard configurations and sizes.
Other configurations may be available on request.