

ArmD® UV-SRC

Silica/silica fiber with hermetic carbon layer

Armadillo is pleased to introduce a new product designed for the UVC spectral range. Enhanced solarization resistance and increased stability in our UV-SRC fiber expand its application possibilities across a wide range of scenarios.

Wavelength

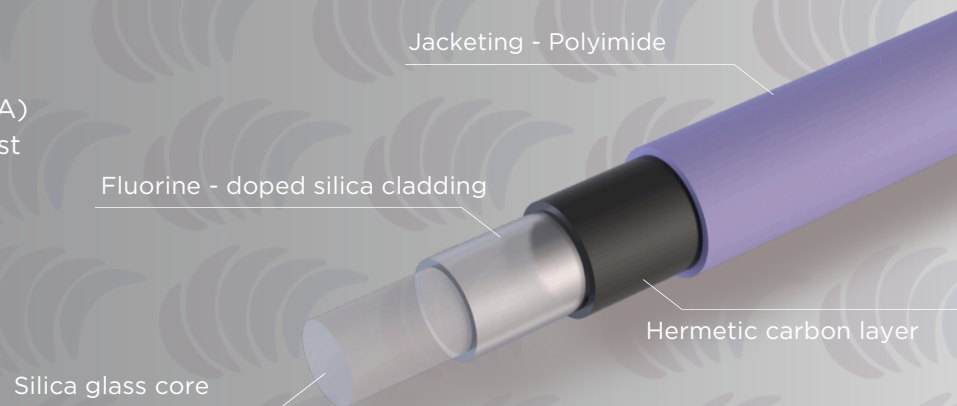
ArmD® UV-SRC	180 - 2100 nm
ArmD® UV-SR	190 - 2100 nm

Numerical Aperture (NA)

Low	0.12 ± 0.02 0,15 ± 0,02
Standard	0.22 ± 0.02
High	0.26 ± 0.02 0,28 ± 0,02

Advantages

- Significantly improved deep UV solarization resistance
- Hermetic coating
- Customizable Numerical Aperture (NA) from 0.12 to 0.30 available upon request
- Very low NA expansion
- Biocompatible material
- Manufactured at GMP and ISO 9001 compliant facility



Technical data

Operating temperature	- 190 to + 150 °C
Core diameter	Available from 90 to 1000 µm
Standard core / cladding ratios	1 : 1,06 1 : 1,1 1 : 1,2 1 : 1,4 or customised
OH Content	High (> 700 ppm)
Standard proof test	70 kpsi (polyimide jacket)
Minimum bending radius	50 × cladding diameter (short-term mechanical stress) 300 × core diameter (during use with high laser power)

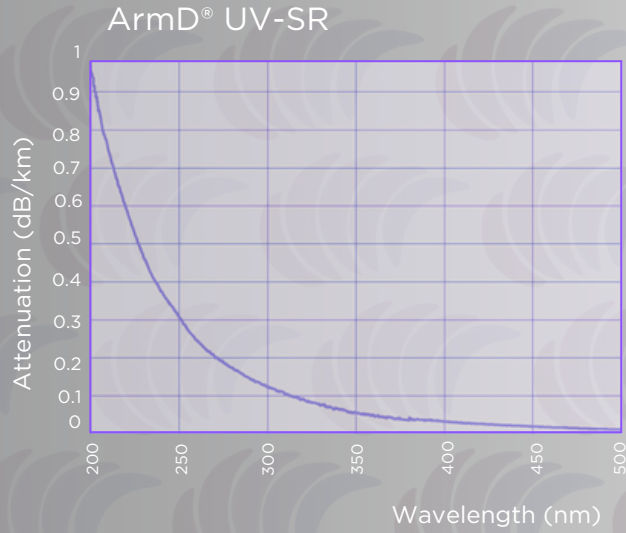
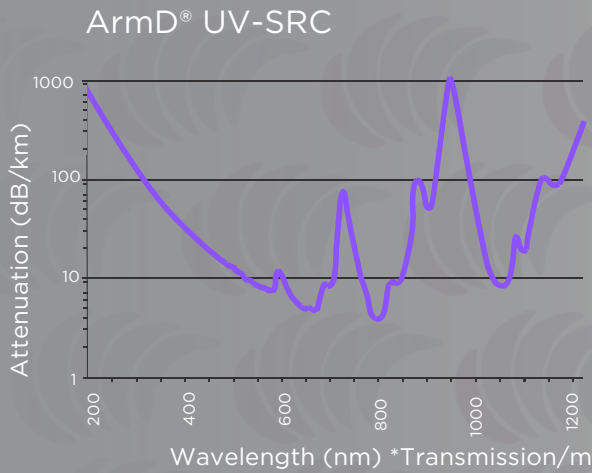


Scan to see more

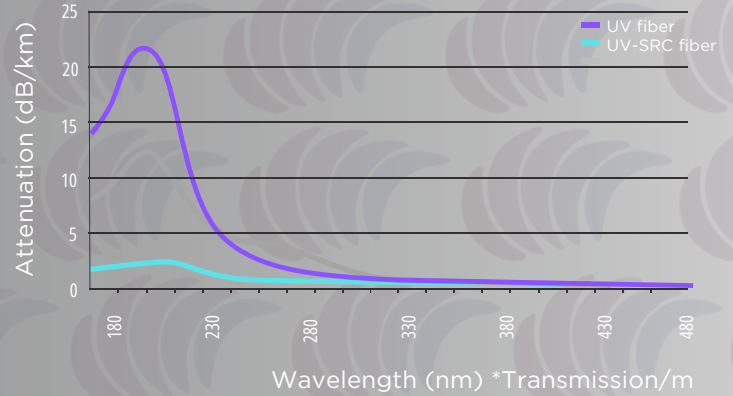


Attenuation values

The following diagrams provide an overview of attenuation values in relation to wavelengths

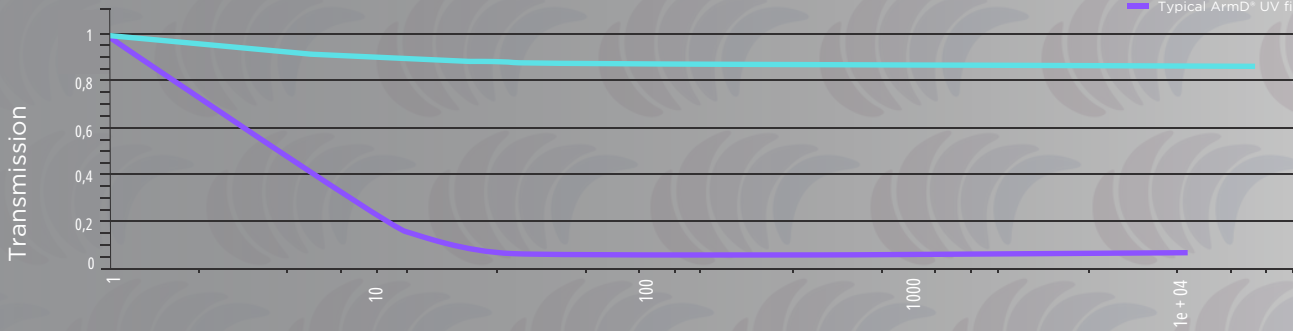


Comparison of Solarization Resistance



Transmission Comparison

Attenuation caused by radiation with ArF laser/1000j/cm²



Transmission changes of 2 m of fiber at 214 nm | Irradiating by D2 lamp with CaF₂ lenses Using D2 lamp and CaF₂ lenses we undergo our UV NSS fiber UV radiation which has maximal intensity from 180 to 240 nm. Solarization dynamics comparison for ArmD® UV and ArmD® UV-SRC at wavelength 214 nm you can see above.

Exposure time (min)

Applications

The primary selection for various applications such as spectroscopy, medical diagnostics, medical technology, laser delivery systems, and more.



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