

ArmD™ UV NSS

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 NSS fiber expand its application possibilities across a wide range of scenarios.

Wavelength

ArmD™ UV NSS 190 – 1200 nm

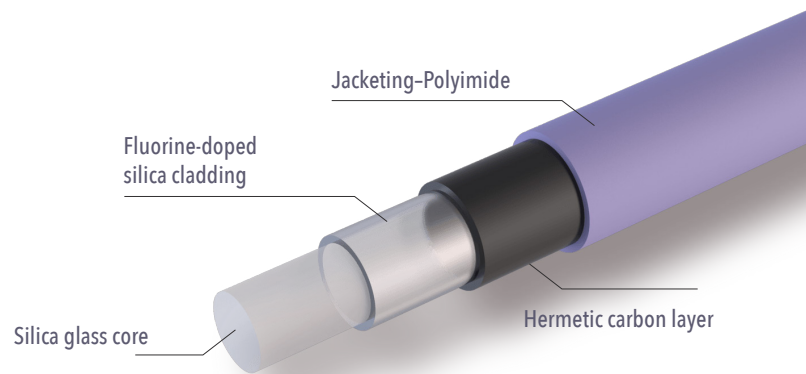
Numerical aperture (NA)

Low	0,12 ± 0,02 0,15 ± 0,02
Standard	0,22 ± 0,02
High	0,26 ± 0,02 0,28 ± 0,02

High Solarization Resistance

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



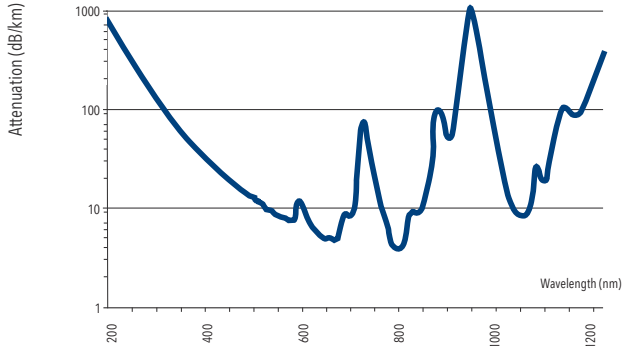
Technical data

Wavelength / spectral range	ArmD™ UV NSS: 190 – 1200 nm
Numerical aperture (NA)	0,12 ± 0,02 0,15 ± 0,02 0,22 ± 0,02 0,26 ± 0,02 0,28 ± 0,02 or customised
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)

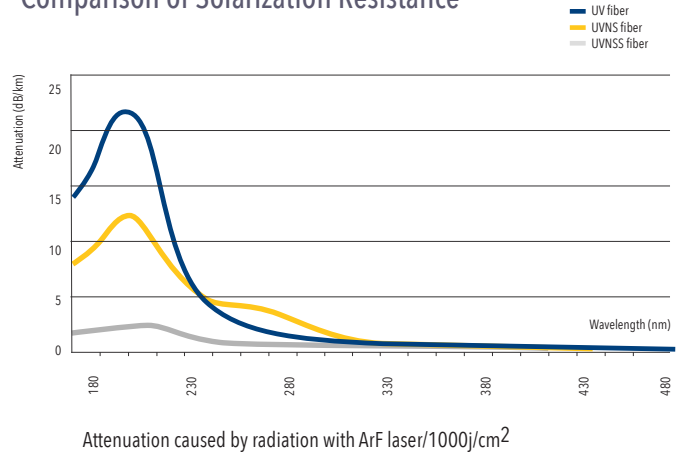
Attenuation values

The following diagrams provide a summary of attenuation values in relation to wavelengths:

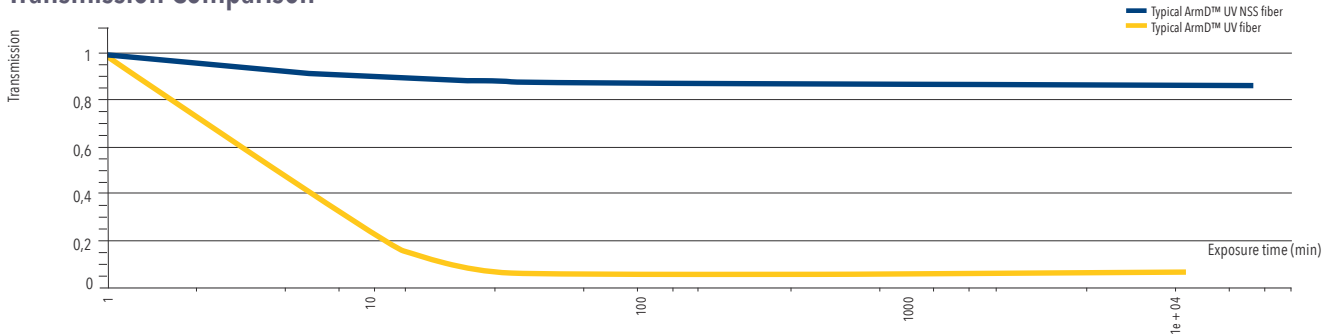
ArmD™ UV NSS



Comparison of Solarization Resistance



Transmission Comparison



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 Optran UV and Optran UV NSS at wavelength 214 nm you can see above.

Applications

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

1 2 3 4 5 6

Product code key using the example of WF 300/330 (H)(B)N (28)

- | | |
|-----------------------------------|---|
| 1 Fiber type | UV = ArmD™ UV WF = ArmD™ WF WFGE = ArmD™ WFGE HUV = ArmD™ HUV HWF = ArmD™ HWF |
| 2 Standard core / cladding ratios | Core \varnothing (μm) / Cladding \varnothing (μm) |
| 3 Buffer | H = hard polymer buffer No information = silicone buffer |
| 4 Colour | B = black BL = blue W = white Y = yellow R = red G = green No information = transparent |
| 5 Jacket material | A = acrylate jacket (no buffer) F = PFA Fluon® N = nylon jacket (silicone or hard polymer jacket)
T = ETFE jacket (silicone or hard polymer buffer) P = polyimide jacket (no buffer) |
| 6 Numerical aperture (NA) | 12 = 0,12 28 = 0,28 No information = 0,22 (standard) |

SIA "Armadillo"

LV40203150242

Krisjana Valdemara iela 33-27,

Rīga LV 1010 Latvia



<https://armadillosia.com>

Phone +1 408 900-8883

Fax 408 834-7430

info@armadillosia.com