

ArmD™ Ultra WFGE

Ge-doped silica/silica fiber

Armadillo ArmD™ Ultra WFGE fibers distinguish themselves with maximum numerical aperture values, unparalleled performance, and an extensive spectral range. Offering a wide range of core diameter options and customizable solutions, these fibers can be tailored to meet your specific needs.

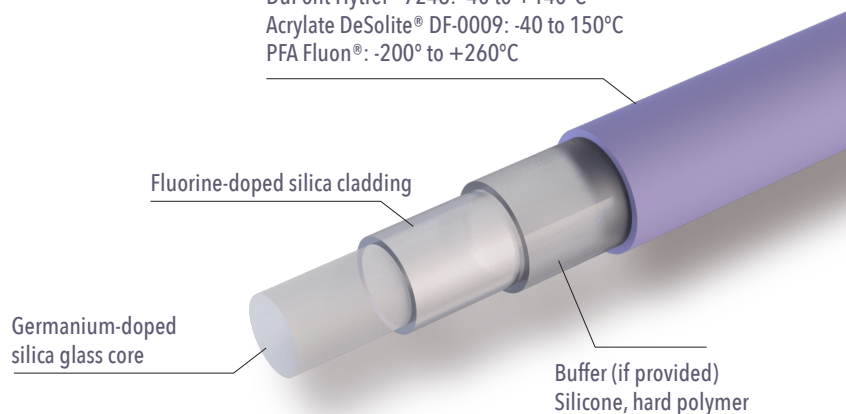
Wavelength		Numerical aperture (NA)	
ArmD™ Ultra WFGE	400 – 2400 nm	Standard	0,37 ± 0,02

Jacketing Options:
 Polyimide: -190 to +350°C
 ETFE (Tefzel®): -40 to +150°C
 Nylon: -40 to +100°C
 Acrylate: -40 to +85°C
 DuPont Hytrel® 7246: -40 to +140°C
 Acrylate DeSolite® DF-0009: -40 to 150°C
 PFA Fluon®: -200° to +260°C

High NA for Demanding Applications

Advantages

- Germanium-doped silica glass core
- Step-index profile
- High resistance against laser damage
- Special jackets available for high temperatures, high vacuum and harsh chemicals
- Very low NA expansion
- Biocompatible material
- Sterilizable using ETO and other methods

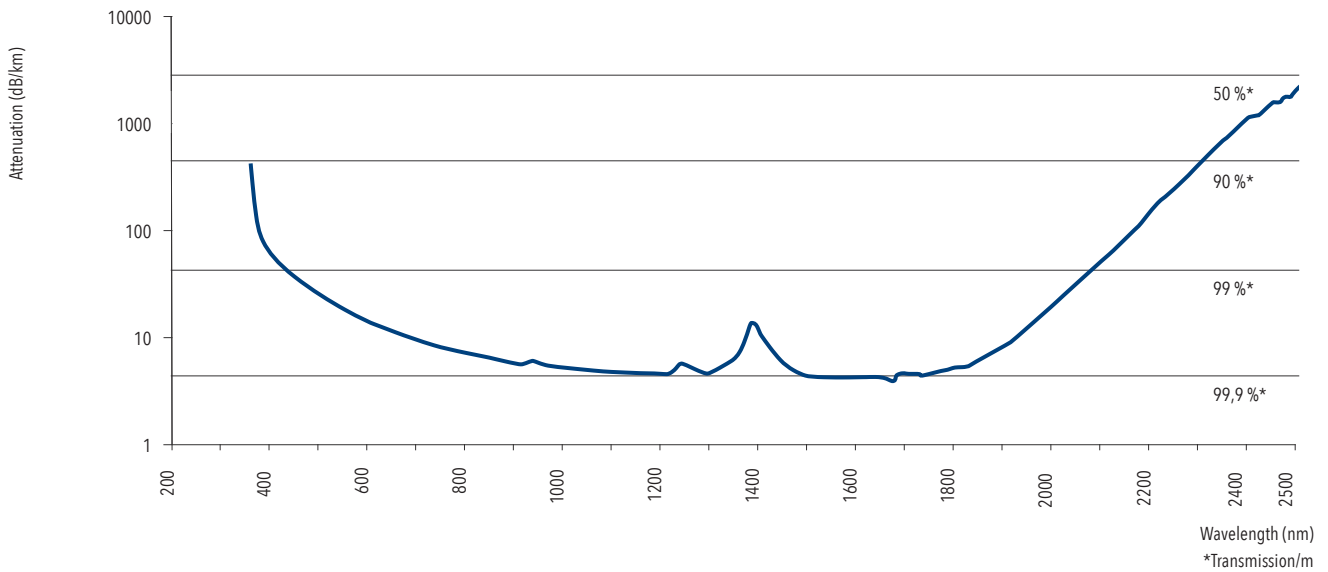


Technical data

Wavelength / spectral range	ArmD™ Ultra WFGE: 400 – 2400 nm
Numerical aperture (NA)	0,37 ± 0,02 higher NA upon request
Operating temperature	-190 to +350 °C
Core diameter	Available from 20 to 3000 µm
Standard core / cladding ratios	1 : 1,04 1 : 1,06 1 : 1,1 1 : 1,15 1 : 1,2 1 : 1,25 1 : 1,4 or customized
Standard proof test	100 kpsi (nylon, ETFE, acrylate jacket) 70 kpsi (polyimide jacket)
Minimum bending radius	50 × cladding diameter (short-term mechanical stress) 150 × core diameter (during use with high laser power)

Attenuation values

The following diagram provides an overview of attenuation values in relation to wavelengths:



Applications

Primarily chosen for applications such as spectroscopy, laser technology, research, photodynamic therapy, and various other purposes.

1 2 3 4 5 6
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Product code key using the example of WF 300/330 (H)(B)N (28)

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|-----------------------------------|---|
| 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) |

