

ArmD™ Metal-Coated Silica Fibers

Silica/silica fibers with Metal Coating

ArmD™ Metal-coated silica fibers, available in Tin, Copper, Aluminum, and Carbon-primed Aluminum are capable of withstanding the highest temperatures among all types of fibers, making them well-suited for challenging environments.

Wavelength		Numerical aperture (NA)	
ArmD™ UV	190 - 1200 nm	Low	0,12 ± 0,02 0,15 ± 0,02
ArmD™ WF	300 - 2400 nm	Standard	0,22 ± 0,02
		High	0,26 ± 0,02 0,28 ± 0,02

ArmD™ Metal Coated

Advantages

- Available for all fibers
- Exceptional resistance to high temperatures
- Robust resistance to harsh chemicals
- Solderable for convenient integration
- Hermetically sealed for enhanced durability

MetalCoating Options:

Tin: 230°C

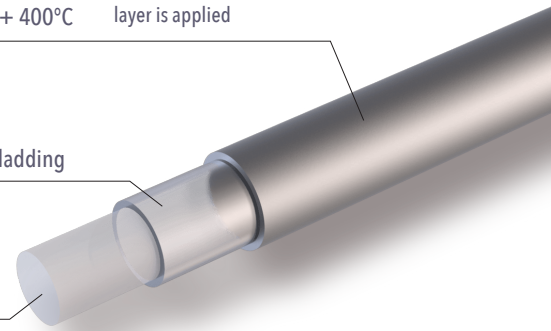
Copper (Cu): -270 to + 600°C*

Aluminum(Al): -270 to + 400°C

*Temperature of up to 750°C can be achieved if a Cu + Ni double layer is applied

Fluorine-doped silica cladding

Silica glass core



Technical data

Wavelength / spectral range	*same as fiber of choice
Numerical aperture (NA)	0,12 ± 0,02 0,15 ± 0,02 0,22 ± 0,02 0,26 ± 0,02 0,28 ± 0,02 or customized
Operating temperature	- 270 to + 600 °C
Core diameter	Available from 25 to 2000 µm
Core thickness	Tin: 15 to 50 Copper: 15 to 50 Aluminum: 15 to 150
Tensile strength (short gauge), GPa	Tin: 6 to 9 Copper: 2 to 3 Aluminum: 3.5 to 6
Two point bending strength, GPa	Tin: >10 Copper: >10 Aluminum: >10
Static fatigue parameter, n	Tin: >100 Copper: >100 Aluminum: >100
Minimum bending radius	100 × diameter (short-term mechanical stress) 200 × diameter (during use with high laser power)

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