Metal Coated Fibers & Cables

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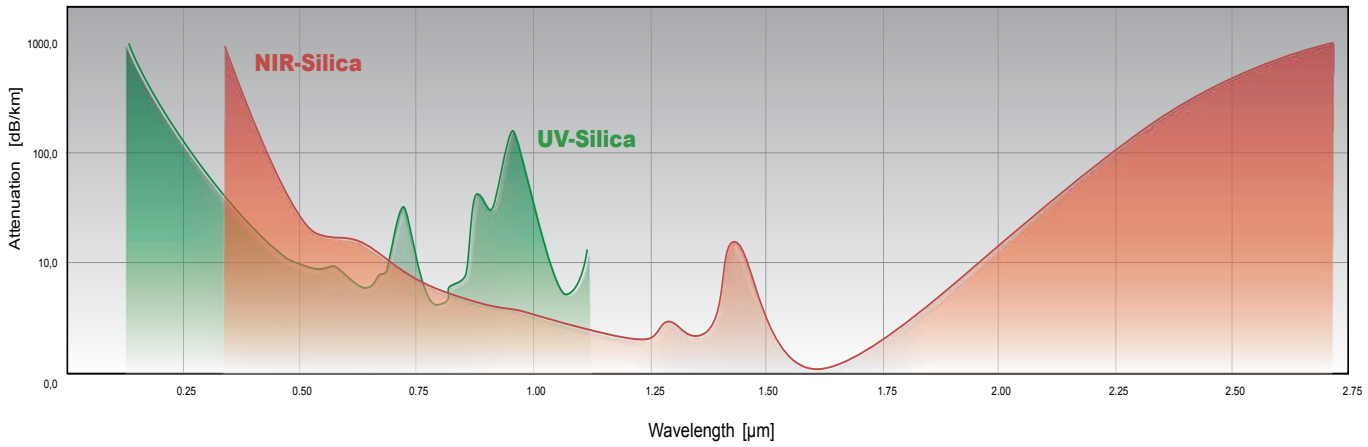
art photonics Metal-Coated Silica Fibers are ideally suited for use in high temperature, vacuum and harsh chemical environments. This is due to the strong mechanical adhesion of the metal directly to the silica cladding during drawing process.

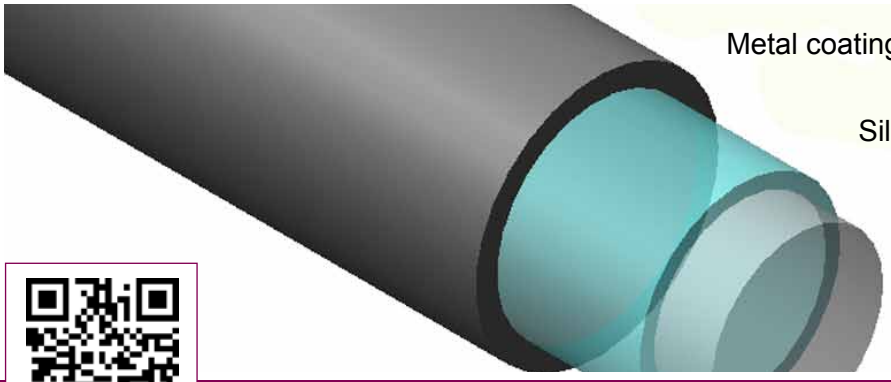
Applications:

- High temperature environments
- Harsh Chemical environments
- Nuclear radiation
- High Power Laser delivery
- Medical applications
- Soldered fiber bundles



FlexiRay® MCS	Specification
Core material	Pure silica High OH^- (λ= 0.18 – 1.2 µm) Low OH^- (λ= 0.35 – 2.5 µm)
Cladding material	Fluoride doped fused silica
Standard Numerical Aperture (NA)	0.22 ± 0.02 (Full Acceptance Angle 25°)
Available Numerical Aperture (NA)	0.12 ± 0.02 (Full Acceptance Angle 14°) 0.26 ± 0.02 (Full Acceptance Angle 30°)
Material of metal coating	Al, Cu
Humidity Range	Up to 100%
Minimal bending radius (long term) **Minimal bending radius (short term)**	200 x fiber outer diameter 100 x fiber outer diameter

Coating material	Al	Cu-alloy
Standard Fiber core diameters, µm	9	9
	200	200
	400	400
	600	N/A
	1000	N/A
Coating thickness, µm	15 – 150	15 – 50
Min operating temperature, °C	-270	-270
Max operating temperature, °C	400	600
Tensile strength (short gauge), GPa	3.5 – 6	2 – 3
Two point bending strength, GPa	>10	>10
Static fatigue parameter	>100	>100



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