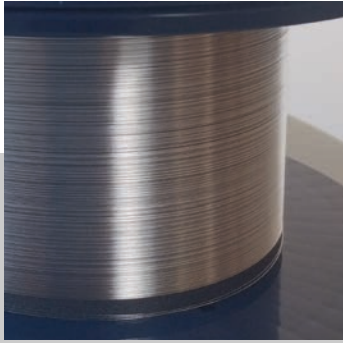




METAL COATED FIBRES ALUMINUM COATED FIBRES



Metal-coated silica fibres offer higher mechanical and chemical robustness than polymer-coated fibres for many applications in harsh environment conditions (high temperature, radiation...).

MAIN CHARACTERISTICS

- Custom multimode or singlemode silica fibres
- Handling wide temperature/radiative ranges
- Water/hydrogen sealing barrier
- Drawing of customer's preform available

APPLICATIONS

- Signal transmission in harsh environment
- High power active fibre cooling
- Distributive temperature sensing

Product line **PERFAS**

FIBRE SPECIFICATIONS ⁽¹⁾	SM-1550-125-014-AL	MMGI-50-125-020-AL
Optical parameters	SINGLEMODE	MULTIMODE
Operating wavelength (nm)	1300 - 1650	800 - 1400
Cutoff wavelength (nm)	$1150 \leq \lambda_c \leq 1275$	N/A
Attenuation (dB/km)	≤ 20 @ 1310 nm & 1550 nm	≤ 25 @ 850 nm & 1300 nm
Mode field diameter (µm)	7.8 ± 0.5 @ 1310 nm 9 ± 0.5 @ 1550 nm	N/A
Numerical aperture	0.14 ± 0.01	0.20 ± 0.02
Physical/Material parameters		
Core diameter (µm)	6.8 typical	50 ± 2
Core concentricity error (µm)		≤ 1
Cladding diameter (µm)		125 ± 2
Coating outside diameter (µm)		170 ± 10
Coating material		Aluminum
Proof test level (kpsi)		100
Operating temperature range (°C)		- 269 to +400
Bend radius (mm)		Short term: 15 Long term: 30

⁽¹⁾ Off the shelf fibres developed in collaboration with Exail. Other versions available on request.

Microscope view of the Aluminum coating surface



Multiple options and configurations are available. Please contact Photonics Bretagne to find the best fit.
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