

## Specifications for vacuum compatible fibres

The fibres listed here are used for vacuum feedthroughs and high temperature in-vacuum UHV fibres.

	100µm		200µm		400µm		600µm		125/50µm	125/4µm	125/5µm	125/6µm	125/9µm
	UV	IR	UV	IR	UV	IR	UV	IR	SINGLE MODE				
Coating	copper alloy								copper alloy				
Numerical aperture	0,22								0,22	0,13			
Index profile	step index								graded index				
Preform	Silica (Quartz) Ge doped / Pure core - F-doped								Silica (Quartz) Ge doped				
OH content	high OH	low OH	high OH	low OH	high OH	low OH	high OH	low OH	low OH				
Core ø (µm)	100 +/-2		200 +/-3		400 +/-5		600 +/-8		50	4	5	6	9
Cladding ø (µm)	110 +/-2		220 +/-3		425 +/-5		660 +/-8		125 +/-1				
Coating ø (µm)	145 +/-10		280 +/-10		530 +/-10		800 +/-15		165 +/-10				
Concentricity	<5µm								<5µm	0,5µm		0,5µm	
Bend radius short									>10mm				
Bend radius, long	>20mm		>40mm		>70mm		>100mm		>25mm				
Max Temperature short	<600°C								<600°C				
Max Temperature long	<450°C								<450°C				
Nom. Wavelength	--								--	450-600	600-800	800-1000	1300-1600
Transmission (nm)	200-1600	400-2000	200-1600	400-2000	200-1600	400-2000	200-1600	400-2000	600-2000	>450	>560	>770	>1250
Damping db/m													
at 200nm	~3	--	~3	--	~3	--	~3	--	--	--	--	--	--
at 400nm	0,05	0,1	0,05	0,1	0,05	0,1	0,05	0,1	--	0,014	--	--	--
400..900nm	<0,15		<0,15		<0,15		<0,15		--	@450nm	--	--	--
600nm		0,05		0,05		0,05		0,05		--	0,012	--	--
800nm	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05			--	0,0105	--
1000nm		0,03		0,03		0,03		0,03		--	--	--	--
1300nm		0,03		0,03		0,03		0,03	0,014	--		--	0,0095
1600nm		0,03		0,03		0,03		0,03		--	--	--	--

As standard, fibres with connectors use a 4mm ø Stainless Steel jacket.

File: 150-FIBRES-extended Last revised 2023-03-10

All data given in this sheet are carefully checked but subject to change at any time.