



Member of LEONI Group

j-Ultrasol Fiber Solarization Resistant Fiber

Ordering information

To order please call, fax or email us and specify the following parameters:

Fiber Type:	j-Ultrasol
Core/Clad Size:	
Fiber Quantity:	m
Other:	Desired ship date, special requests

All fibers and preforms are subject to j-fiber's ongoing process and quality improvement programs ensuring excellent performance and high reliability. We reserve the right to make changes to the above specification without notice.

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with regard to DIN ISO 16016

Officially registered facility
according to EWG No. 1221/2009



For further information about j-fiber products and services, please contact us:

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Ultraviolet radiation exposure impacts the transmission performance and life time of silica fibers. With j-Ultrasol j-fiber has developed a solarization resistant fiber for long life, high transmission stability under UV exposure especially in the critical range below 230 nm. j-Ultrasol fiber shows excellent short and long-term stability results: 96% transmission stability @ 215 nm under short-term (< 24 h) UV exposure, long-term high transmission stability (< 1500 h) at a steady 86% level. The silica core, fluorine-doped silica clad Step Index Multimode fiber is designed for spectroscopy and medical or industry applications in the wavelength operation range below 400 nm.

Due to our integrated process chain from silica to preform design and manufacturing to final fiber drawing we can ensure sustained fiber performance and minimize solarization specific performance degradation already by controlling the raw material and preform processes.

Applications

- Spectroscopy
- Medical devices
- Industry applications

Ultra High Transmission Stability. Long Fiber Lifetime

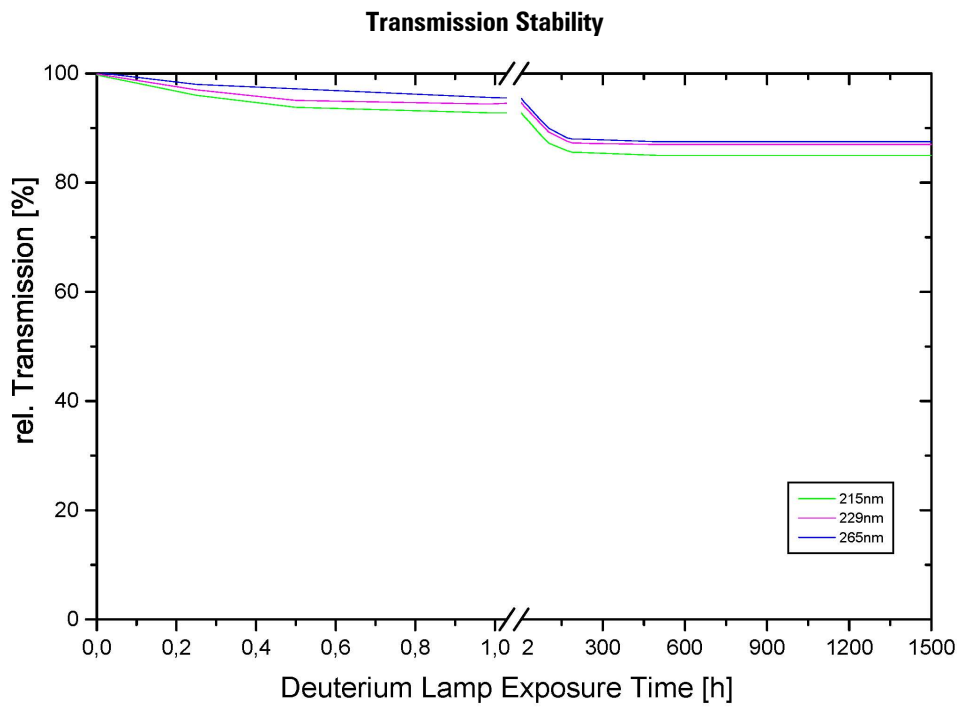
High transmission stability under UV exposure
(215 nm deuterium lamp, optical output 8 μ W):

- 96% short-term stability transmission up to 24 h
- From 96% to 86% mid-term stability decline from 24 h up to 240 h
- 86% long-term transmission stability from 240 h up to 1500 h
- Optimized for operation at wavelengths below 400 nm
- High overall transmission

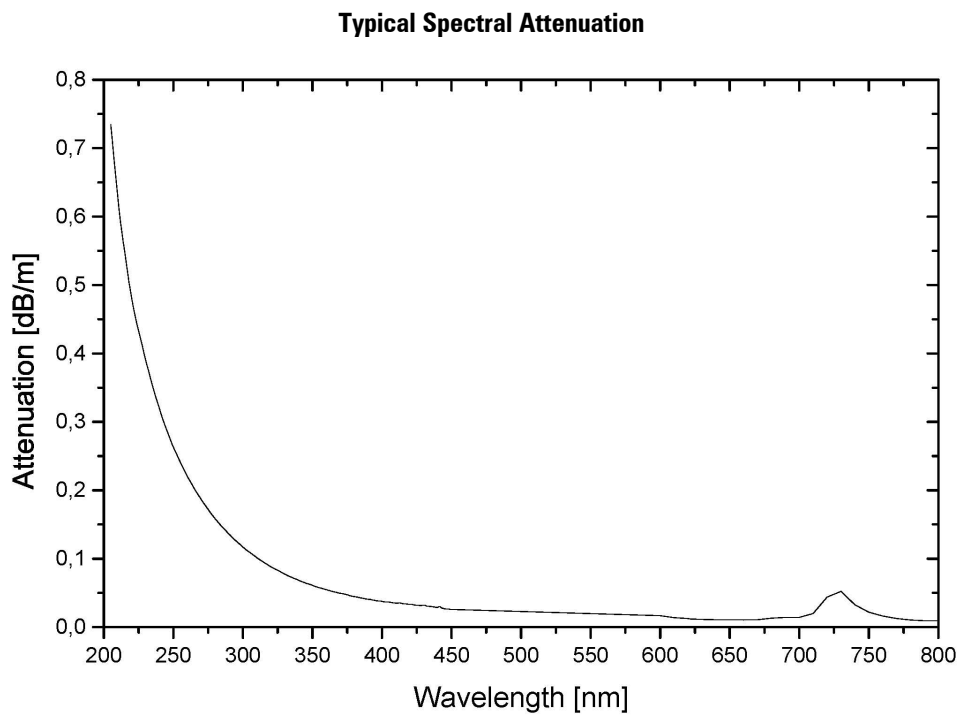
Specification

	Spec. Values				Unit
Refractive index profile	step index				
Numerical aperture	0.22 ± 0.02				
Core diameter	100 ± 2%	200 ± 2%	300 ± 2%	400 ± 2%	μm
Core material	undoped synthetic silica				
Clad diameter	110 ± 2%	220 ± 2%	330 ± 2%	440 ± 2%	μm
Clad material	fluorine doped synthetic silica				
Coating diameter	160 ± 5%	270 ± 5%	400 ± 5%	520 ± 5%	μm
Coating material ¹	acrylate				
OH-content	high OH				
Application wavelength	200-800				nm
Operating temperature range	-60 to +85				°C
Proof test	100				kpsi
Attenuation	@ 215nm	< 0.7		dB/m	

¹ Other available coating types: HTC 200, Polyimide, UV-transparent coating



Relative transmission curve of j-Ultrasol fiber at 215 nm (step-index fluorine doped fiber, 200/220 μm , NA 0.22) 229 nm and 265 nm wavelengths as a function of the deuterium lamp exposure time up to 1500 hours.



Typical attenuation curve of j-Ultrasol fiber (step-index fluorine doped fiber, 200/220 μm , NA 0.22).