

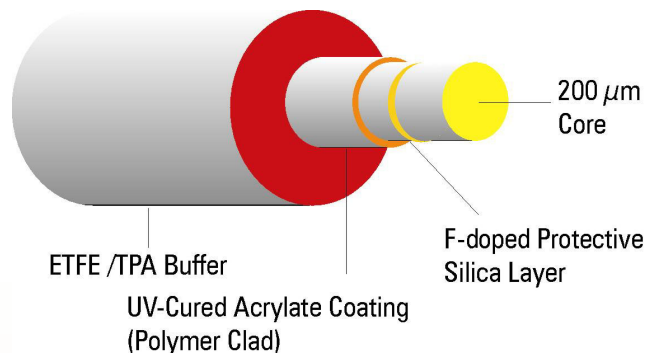
## PSHC 200/230 series - Low OH fiber

PSHC –Low OH fiber features a large core diameter for easy handling and high coupling efficiency to LED and laser sources. The special low index polymer cladding provides high temperature stability and can be used with crimp & cleave technology for fast and easy connectorization. In addition the j-fiber PSHC fiber features a protective fluorine-doped silica layer around the core glass for deployment in a wide wavelength range. Two buffer options are available to have a perfect choice for highest reliability in harsh environments or for the fabrication of LSZH cables for indoor application.

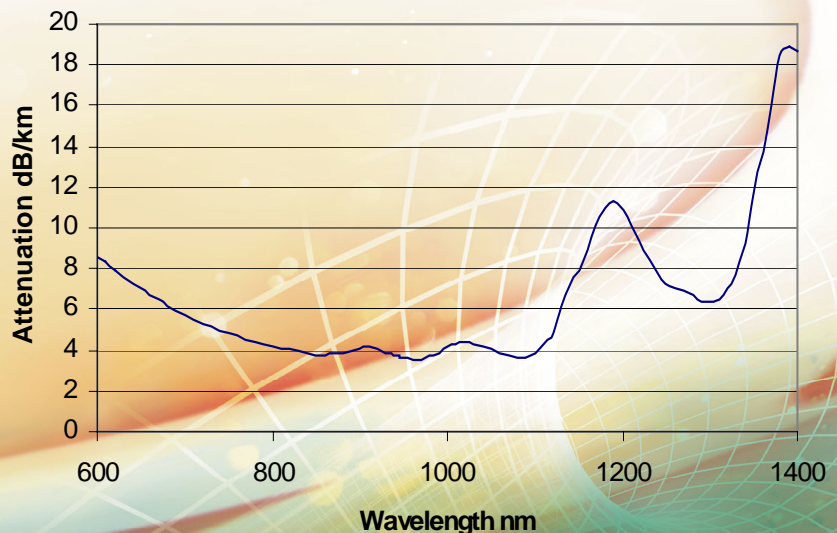
### Features & Benefits

- Large core for efficient light launch and coupling
- Special polymer clad supports Crimp & Cleave technology
- Protective F-doped silica layer for high laser damage threshold and industry leading low attenuation
- Available in 2 attenuation classes: ultra & standard
- Enlarged optical window design enables use of a wide range of light sources
- Easy strippable buffer material for fast and efficient connectorization
- Available in 2 buffer options:
  - TPA buffer material for the production of Low Smoke Zero Halogen (LSZH) cables for indoor applications
  - ETFE buffer material for harsh environments provides highest reliability in demanding ambience with high or low temperatures and humidity

### Fiber Construction PSHC Series



### Typical Spectral Attenuation (PSHC ultra)



For further information about our PSHC - Pure Silica Core Hard Clad Fibers and other j-fiber products and services, please contact us:

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## Applications

- Laser power transmission
- Medical application (laser and sensor technology)
- Short to medium distance communications
- Factory automation
- Near-IR spectroscopy
- Optical pyrometry

## Geometrical Characteristics

	Spec. Values	Unit
	PSHC Series	
Core Material	low OH synthetic silica	
Core Diameter	200 ± 4	μm
Cladding Material	low refractive index acrylate	
Cladding Diameter	230 +0/-10	μm
Core/Clad Offset	≤ 5	μm
Buffer Diameter	500 ± 50	μm
Buffer Material	ETFE/TPA	

<sup>1</sup> Measurement of NA is based on a 2 m length of fiber at 850 nm and 50 % value of maximum intensity

## Optical Characteristics

	PSHC ultra	PSHC standard	Unit
Attenuation at <sup>1</sup> :			
650nm	≤ 9	n.a.	dB/km
850nm	≤ 5	≤ 6	dB/km
940nm	≤ 5	n.a.	dB/km
Profile	step index		
Numerical Aperture <sup>1</sup>	0.37 +/-0.02		

<sup>1</sup> Input launch: NA = 0.3 and spot diameter 100 μm

## Buffer Characteristics

	Spec. Values		Unit
	TPA	ETFE	
Operating Temperature	-40 to +85	-60 to + 125	°C
Proof Test	0.5 ± 0.1	0.5 ± 0.1	GPa
Bend Radius			
short term	10	10	mm
long term	16	16	mm
Buffer Strip Force	≤ 5	≤ 3	N
Buffer Strip Length	> 3	> 8	cm

## Environmental Characteristics

Attenuation increase by:	Spec. Values @ 850/1300				Unit
	TPA		ETFE		
Change of Temperature	-40°C/ +85°C	≤ 0.5	-60°C/ +125°C	≤ 0.5	dB/km
Dry Heat, 30 days	+85°C	≤ 1	+125°C	≤ 1	dB/km
Damp Heat, 30 days, 85% R.H.	+85°C	≤ 1	+85°C	≤ 1	dB/km
Water immersion, 30 days in water	+23°C	≤ 1	+23°C	≤ 1	dB/km

## Crimp & Cleave

	TPA	ETFE	Unit
Recommended Cleave Tools	Micro-Strip		
Recommended Blade Size	250		μm

## Ordering Information

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

Fiber Type: j-fiber PSHC optical fiber

Class:

Fiber Quantity: m / km

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 specifications without notice.

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DB-FC-501-07-0410 Issued April 2010

Supersedes DB-FC-501-06-0410

j-fiber is an officially registered facility according to EWG No. 761/2001

