

## FUP100-06000400

### Polyimide Coated Bend-insensitive Singlemode Fiber

Bend-insensitive Singlemode fiber with the following properties<sup>1</sup>:

#### 1. Geometrical features

Core Material	Ge-doped fused silica
Cladding Ø	125 µm ± 2µm
Core/Clad Concentricity Error	≤ 1µm
Cladding Non-circularity	≤ 1%
Coating Ø	160 µm ± 10µm
Coating/ Clad Concentricity Error	≤ 5µm
Coating Material	Polyimide

#### 2. Optical properties

Mode Field Diameter @ 1310nm	7.5 ± 0.4 µm
Cut-off Wavelength (uncabled)	≤ 1330nm
Attenuation @ 1310 nm	< 0.6 dB/km
Attenuation @ 1550 nm	< 0.4 dB/km
Numerical Aperture (typical)	0.140
Macrobend Loss @ 1550nm	
1 turn, 10 mm radius	≤ 0.1 dB
1 turn, 7.5 mm radius	≤ 0.5 dB

#### 3. Mechanical properties

Proof-test (100 %)	≥ 100 kpsi
Dynamic Tensile Strength Unaged Fiber (0.5m), Median Tensile Strength	≥ 3.8 GPa
Dynamic Fatigue Stress Corrosion Parameter nd (typical)	≥ 23

#### 3. Additional features

Operating Temperature	- 190°C to + 385°C
Fiber color	Yellow gold

#### 4. Delivery length

>100m

<sup>1</sup> This product under development and classified as a B-sample: For trial of total functional range and the technical requirements, usable for continuous-operating tests, manufacturing of the product is for creation of a specification for the series production and verification of manufacturability. First application tests, dimensions and key parameters according to the series. Not for serial application. Not all customer specifications necessarily fulfilled.