

# Specifications for Plastic Optical Fiber

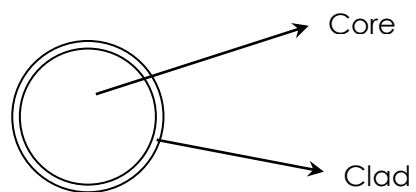
## DB-175

Issued on : April 30, 2020

Issued by : Asahi Kasei Corporation  
Plastic Optical Fiber  
Marketing & Development Gr

## 1, STRUCTURE

ITEM	UNIT	Specifications
Core Material		PMMA
Clad Material		Fluorinated Polymer
Core reflective index		1.49
NA		0.5
Reflective index Profile		Step index
Core Diameter	μm	Typ. 165
Fiber Diameter	μm	175 ± 15
Approx. weight	g/m	0.03



## 2, PROPERTIES

ITEM	UNIT	Specifications	
Storage Temperature Range	°C	-55 ~ 60	*1
Application Temperature Range	°C	-55 ~ 60	*1
Attenuation (23 °C 50%)	dB/km	≤500	*2
Tensile Strength at Break Point	N	≥ 2	*3
Minimum Bending Radius	mm	1	*4

### Sample conditions

Temperature: T = 23°C  
Humidity: RH = 50%  
Storage time: t = 200h

- \*1 : After 1000h, Attenuation Increase shall be ≤10% of the specification
- \*2 : Monochromatic light at 650nm, LNA = 0.15, 20-2m Cut-back Method
- \*3 : Interval between grippers = 100 mm, Tensile Speed = 100mm/min
- \*4 : L = 2m, 90 degree bending at the middle of fiber  
Light Source : LED (Peak Wavelength = 657nm)  
Transmission Rate ≥ 90%

### 3, RoHS certification

The product does not contain RoHS 2 hazardous substances, Cadmium, Lead, Mercury, Chromium (VI), PBB, PBDE, DIBP, DEHP, DBP and BBP intentionally.