

# Specifications for Plastic Optical Fiber

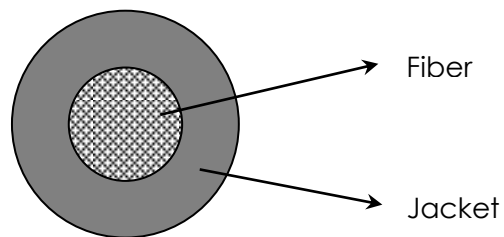
## Multicore POF<sup>TM</sup> MCS-500P-10

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

1, STRUCTURE

ITEM	UNIT	Specifications
Core Material		PMMA
Clad Material		Fluorinated Polymer
Core Refractive Index		1.49
Refractive Index Profile		Step Index
Fiber Diameter	μm	500 ± 30
Core Number		217
NA		0.5
Jacket Material		PE
Jacket Diameter	μm	1000 ± 60
Jacket Color		Black
Approximate Weight	g/m	0.8



2, PROPERTIES

ITEM	UNIT	Specifications	
Storage Temperature Range	°C	-55 ~ 70	*1
Application Temperature Range	°C	-55 ~ 70	*1
Attenuation (collimated light)	dB/km	≤ 500	*2
Attenuation(LED)	dB/km	≤ 800	*3
Tensile Strength at 5% Elongation	N	≥ 14	*4
Tensile Strength at Break Point	N	≥ 20	*4
Minimum Bending Radius	mm	1	*5

Sample conditions

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

- \*1 : After 1000h, Attenuation Increase shall be ≤15% of the specification
- \*2 : Monochromatic light at 650nm, LNA = 0.15, 18-2m Cut-back Method
- \*3 : Light Source : LED (Peak Wavelength = 657nm), 20-2m Cut-back Method
- \*4 : Interval between grippers = 100 mm, Tensile Speed = 100mm/min
- \*5 : 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.