

Specifications for Plastic Optical Fiber

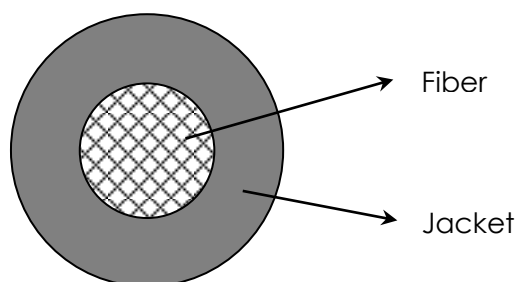
Multicore POF™ MCS-1000P

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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	1000 ± 60
Core Number		217
NA		0.5
Jacket Material		PE
Jacket Diameter	μm	2200 ± 70
Jacket Color		Black
Approx. weight	g/m	3.6



2, PROPERTIES

ITEM	UNIT	Specifications	
Storage Temperature Range	°C	-55 ~ 60	*1
Application Temperature Range	°C	-55 ~ 60	*1
Attenuation (collimated light)	dB/km	≤ 450	*2
Attenuation (LED)	dB/km	≤ 600	*3
Tensile Strength at 5% Elongation	N	≥ 60	*4
Tensile Strength at Break Point	N	≥ 80	*4
Minimum Bending Radius	mm	2	*5
Repeated Bending Endurance	Times	≥ 10000	*6
Maximum twisting	Times	≥ 5	*7
Impact Endurance	N · m	≥ 0.6	*8

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, 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%
- *6 : Method JIS C6861:1999 (R 15mm ±90degree Tension 500g)
Attenuation increase ≤1dB
- *7 : Method JIS C6861:1999 (fiber length 250mm Tension 500g)
Attenuation increase ≤1dB
- *8 : Method JIS C6861:1999
Attenuation increase ≤1dB

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.