

Specification Sheet

BH-2001

High-Performance Plastic Optical Fiber

E s k a™

MITSUBISHI RAYON CO.,LTD.

ESKA OPTICAL FIBER DIVISION

6-41 Konan 1-Chome, Minato-ku, Tokyo, JAPAN

Phone : +81-3-5495-3060

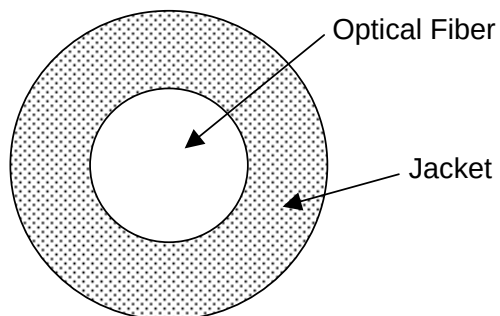
Facsimile : +81-3-5495-3212

1. Scope
This specification covers basic requirements for the structure and optical performances of BH-2001.
2. Structure

Table 1

		BH-2001			
Item		Specification			
		Unit	Min.	Typ.	Max.
Optical Fiber	Core Material	—	Polymethyl-Methacrylate Resin		
	Cladding Material	—	Fluorinated Polymer		
	Core Refractive Index	—	1.49		
	Refractive Index Profile	—	Step Index		
	Numerical Aperture	—	0.58		
	Core Diameter	μm	455	485	515
	Cladding Diameter	μm	470	500	530
Jacket	Material	—	Crosslinked Polyethylene		
	Color	—	Black		
	Diameter	mm	0.90	0.95	1.00
Approximate Weight		g/m	0.7		
Indication on the Product		—	None		

Sectional View



3. Performances

Table 2

BH-2001

Item		Acceptance Criterion and/or [Test Condition]	Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [in a Dry Atmosphere]	°C	-55	—	+105
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]	°C	-55	—	+105
		No Deterioration in Optical Properties** [under 95%RH condition]	°C	—	—	+85
Optical Properties	Transmission Loss [650nm Collimated Light]	[25°C 50%RH]	dB/km	—	—	250
		[Operation Temperature]	dB/km	—	—	300
Mechanical Characteristics	Minimum Bend Radius	Loss Increment $\leq 0.5\text{dB}$ [A Quarter Bend]	mm	10	—	—
	Repeated Bending Endurance	Loss Increment $\leq 1\text{dB}$ [in Conformity to the JIS C 6861]***	Times	1,000	—	—
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861]	N	18	—	—
	Twisting Endurance	Loss Increment $\leq 1\text{dB}$ [Sample Length : 1m Tensile Force : 4.9N]	Times	—	—	—
	Impact Endurance	Loss Increment $\leq 1\text{dB}$ [in Conformity to the JIS C 6861]	N·m	—	—	—

All tests are carried out under temperature of 25°C unless otherwise specified.

* Attenuation change shall be within +/- 10% after 1,000 hours.

** Attenuation change shall be within +/- 10% after 1,000 hours, except that due to absorbed water.

*** Bend Angle +/-90° ,Bend Radius 15mm,Tension 500g