

Specification Sheet

MH-4001

High-Performance Plastic Optical Fiber

E s k a™

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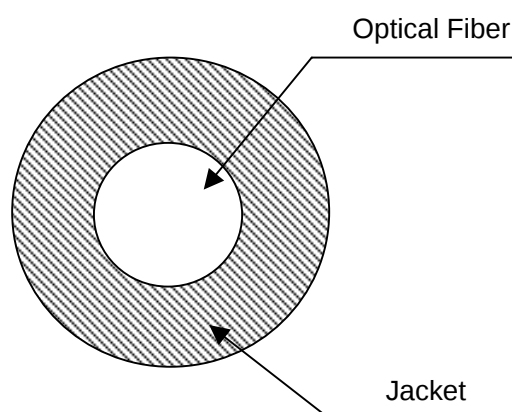
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1. Scope
This specification covers basic requirements for the structure and optical performances of MH-4001.
2. Structure

Table 1

MH-4001

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	-	0.3		
	Core Diameter	μm	920	980	1,040
	Cladding Diameter	μm	940	1,000	1,060
Jacket	Material	-	Polyethylene		
	Color	-	Black		
	Diameter	mm	2.13	2.20	2.27
Approximate Weight		g/m	4		
Indication on the Jacket		-	Pink ;ESKA MEGA.....		

Sectional View

3. Performances

Table 2

MH-4001

Item		Acceptance Criterion and/or [Test Condition]	Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [in a Dry Atmosphere]		-40	-	+85
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]		-40	-	+85
		No Deterioration in Optical Properties** [under 95%RH condition]		-	-	+75
Optical Properties	Transmission Loss [650nm Collimated Light]	[25 50%RH]	dB/km	-	-	160
		[Operation Temperature]	dB/km	-	-	180
	Bandwidth	-3dB bandwidth Launch NA = 0.3 Length 50m@650nm	MHz	170	200	-
Mechanical Characteristics	Minimum Bend Radius	Loss Increment 0.5dB [A Quarter Bend]	mm	25	-	-
	Repeated Bending Endurance	Loss Increment 1dB [in Conformity to the JIS C 6861]***	Times	5,000	-	-
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861]	N	70	-	-
	Twisting Endurance	Loss Increment 1dB [Sample Length : 1m Tensile Force : 4.9N]	Times	5	-	-
	Impact Endurance	Loss Increment 1dB [in Conformity to the JIS C 6861]	N·m	0.4	-	-

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

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

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