

Specification Sheet

CK-100

High-Performance Plastic Optical Fiber

E s k a™

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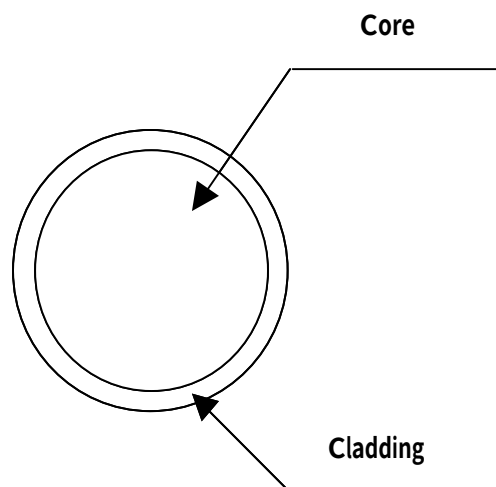
1. Scope

The specification covers basic requirements for the structure and optical performances of CK-100.

2. Structure

Table 1

		CK-100			
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	—	0.5		
	Core Diameter	μm	2,300	2,450	2,600
	Cladding Diameter	μm	2,350	2,500	2,650
Approximate Weight		g/m	6		

Sectional View

3. Performances

Table 2

		CK-100				
Item		Acceptance Criterion and/or [Test Condition]	Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Deterioration in Optical Properties	°C	−55	—	+70
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]	°C	−55	—	+70
		No Deterioration in Optical Properties** [95%RH]	°C	—	—	+60
Optical Properties	Transmission Loss	[650nm Collimated Light] [Standard condition] [10m-1m cutback]	dB/km	—	—	200
Mechanical Characteristics	Minimum Bend Radius	Loss Increment $\leq 0.5\text{dB}$ [A Quarter Bend]	mm	100	—	—
	Tensile Strength	[Tensile Force at Yield Point] [JIS C 6861]	N	400	—	—

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.