Issued in Feb., 2010
No. SPC100208-06

Specification Sheet

CK-80

ESKA

Plastic Optical Fiber

High-Performance Plastic Optical Fiber

E s k a™

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1. Scope

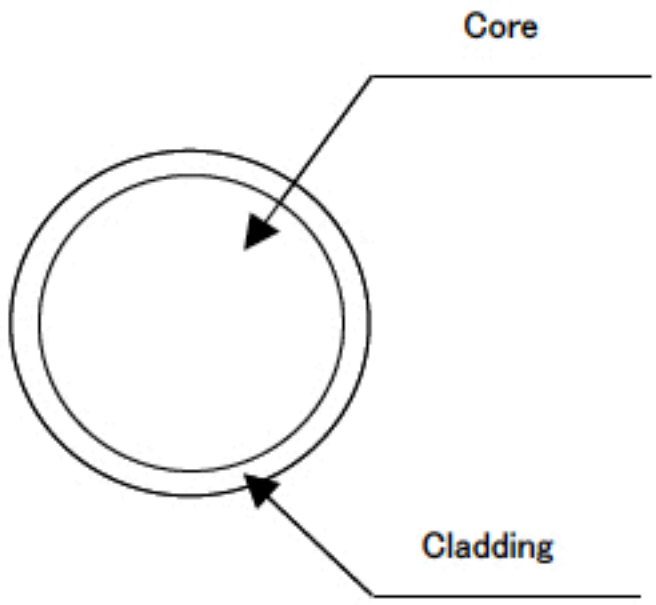
The specification covers basic requirements for the structure and optical performances of CK-80.

2. Structure

Table 1

Item		Specification			
		Unit	Min.	Typ.	Max.
			CK-80		
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	1840	1960	2080
	Cladding Diameter	μm	1880	2000	2120
Approximate Weight		g/m	3.8		

Sectional View



3. Performances

Table 2

Item		Acceptance Criterion and/or [Test Condition]	CK-80 Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Deterioration in Optical Properties	℃	− 55	−	+70
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]	℃	− 55	−	+70
		No Deterioration in Optical Properties** [95%RH]	℃	−	−	+60
Optical Properties	Transmission Loss	[650nm Collimated Light] [Standard condition] [10m-1m cutback]	dB/km	−	−	200
Mechanical Characteristics	Minimum Bend Radius	Loss Increment ≦0.5dB [A Quarter Bend]	mm	80	−	−
	Tensile Strength	[Tensile Force at Yield Point] [JIS C 6861]	N	260	−	−

All tests are carried out under temperature of 25℃ 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.