

Specification Sheet

CK-30

Plastic Optical Fiber

ESKA

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-30.

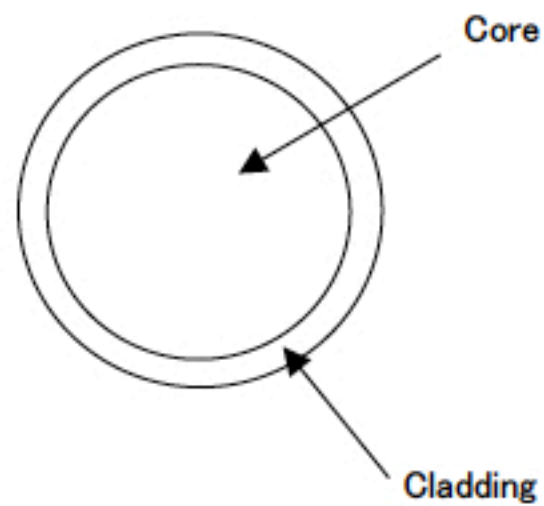
2. Structure

Table 1

CK-30

Item		Specification			
		Unit	Min.	Typ.	Max.
Optical Fiber 1	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	690	735	780
	Cladding Diameter	μm	705	750	795
Approximate Weight		g/m	0.54		

Sectional View



3. Performances

Table 2

CK-30

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	-	+70
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]	°C	- 55	-	+70
		No Deterioration in Optical Properties** [under 95%RH condition]	°C	-	-	+60
Optical Properties	Transmission Loss	[650nm Collimated Light] [Standard condition] [10m-1m cutback]	dB/km	-	-	200
Mechanical Characteristics	Minimum Bend Radius	Loss Increment ≤ 0.5 dB [A Quarter Bend]	mm	15	-	-
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861]	N	32	-	-

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.