

YNS
ELEKTRONIC

Specification Sheet

FC-050

High - Performance Plastic Optical Fiber

From ESKA

1.Scope

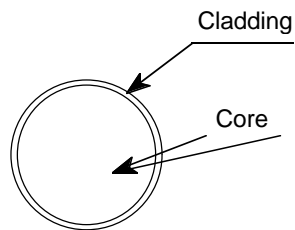
This specification covers basic requirements for the structure, optical and mechanical performances of FC-050.

2. Structure

Table1

Item		FC-050			
		Unit	Min.	Typ.	Max.
Optical Fiber	Core Material	—	Polymetyl - Methacrylate Resin		
	Cladding Material	—	Fluorinated Polymer		
	Core Refractive Index	—	1.49		
	Numerical Aperture	—	0.5		
	Refractive Index Profile	—	Step Index		
	Core Diameter	μm	456	486	516
	Cladding Diameter	μm	470	500	530
Approximate Weight		g / m	0.3		

Sectional View



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3.Performance

Table2			FC-050			
			Specification			
Item		Acceptance Criterion and / or [Test Condition]	Unit	Min.	Typ.	Max.
Maximum Rating	Storage and Operation Temperature	No Deterioration in Optical Properties*	°C	- 55	—	+ 70
	Operation Temperature under high humidity	No Deterioration in Optical Properties** [95 %RH]	°C	-	—	+ 60
Optical Properties	Transmission Loss	650 nm Collimated Light] [Standard condition] [10 m - 1 m cutback]	dB/km	—	—	250
Mechanical Characteristics	Minimum Bend Radius	Loss Increment =< 0.5 dB [Quarter bend]	mm	10	—	—
	Tensile Strength	[Tensile Force at Yield Point] [JIS C 6861]	N	14	—	—

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 .

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