

# **YNS**

# **ELEKTRONIC**

Specification Sheet

**FC-250**

High - Performance Plastic Optical Fiber

From ESKA

## 1.Scope

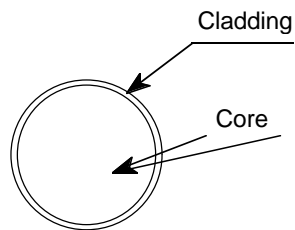
This specification covers basic requirements for the structure, optical and mechanical performances of FC250.

## 2. Structure

Table1

Item		FC-250			
		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	$\mu\text{m}$	2,300	2,450	2,600
	Cladding Diameter	$\mu\text{m}$	2,350	2,500	2,650
Approximate Weight		g / m	6		

Sectional View



## YNS ELECTRONIC

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### 3.Performance

Table2		FC-250				
		Item	Acceptance Criterion and / or [Test Condition ]	Specification		
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	—	—	200
Mechanical Characteristics	Minimum Bend Radius	Loss Increment =< 0.5 dB [ Quarter bend ]	mm	45	—	—
	Tensile Strength	[Tensile Force at Yield Point] [ JIS C 6861]	N	350	—	—

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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