

# Specification Sheet

GHEV-4001

High-Performance Plastic Optical Fiber

Eska™

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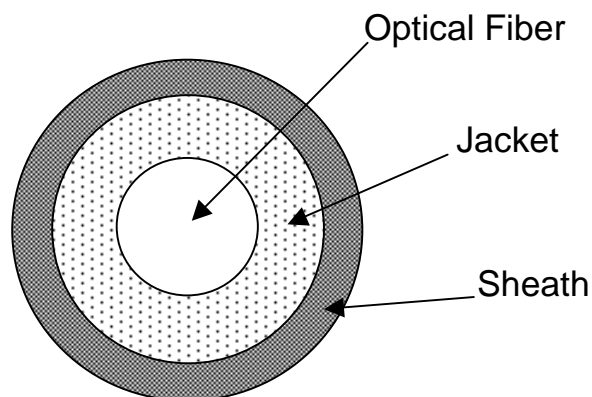
1. Scope  
This specification covers basic requirements for the structure and optical performances of GHEV-4001.
2. Structure

Table 1

GHEV-4001

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	920	980	1,040
	Cladding Diameter	µm	940	1,000	1,060
Jacket	Material	-	Polyethylene		
	Color	-	Black		
	Diameter	mm	2.13	2.20	2.27
Sheath	Material	-	Poly-Vinyl-Chloride		
	Color	-	Gray		
	Diameter	mm	2.9	3.0	3.1
Approximate Weight		g/m	9		
Indication on the Jacket		-	·····ESKA PREMIER·····:Pink		

Sectional View



## 3. Performances

Table 2

GHEV-4001

Item		Acceptance Criterion and/or [ Test Condition ]	Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [ in a Dry Atmosphere ]		-40	-	+85
	Operation Temperature	No Deterioration in Optical Properties* [ in a Dry Atmosphere ]		-40	-	+85
		No Deterioration in Optical Properties** [ under 95%RH condition ]		-	-	+75
Optical Properties	Transmission Loss [ 650nm Collimated Light ]	[ 25 50%RH ]	dB/km	-	-	170
		[ Operation Temperature ]	dB/km	-	-	190
Mechanical Characteristics	Minimum Bend Radius	Loss Increment 0.5dB [ A Quarter Bend ]	mm	35	-	-
	Repeated Bending Endurance	Loss Increment 1dB [ in Conformity to the JIS C 6861 ]***	Times	5,000	-	-
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861 ]	N	120	-	-
	Twisting Endurance	Loss Increment 1dB [ Sample Length : 1m Tensile Force : 4.9N ]	Times	5	-	-
	Impact Endurance	Loss Increment 1dB [ in Conformity to the JIS C 6861 ]	N·m	0.4	-	-

All tests are carried out under temperature of 25 unless otherwise specified.

\* Attenuation change shall be within +/- 10% after 1,000 hours.

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\*\*\* Bend Angle +/-90° ,Bend Radius 15mm,Tension 500g