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**Mitsubishi International Corporation**

# Specification Sheet

## GHV-4001

Eska Premier  
Polyvinylchloride Jacketed  
Plastic Optical Fiber Cord

High-Performance Plastic Optical Fiber

E s k a™

**MITSUBISHI RAYON CO.,LTD.**

ESKA OPTICAL FIBER DIVISION

6-41 Konan 1-Chome,Minato-ku,Tokyo,JAPAN

Phone :+81-3-5495-3060



Facsimile:+81-3-5495-3212

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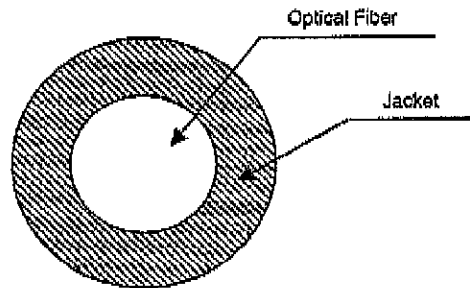
1. **Scope**  
This specification covers basic requirements for the structure and optical performances of GHV-4001.
2. **Structure**

Table 1

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	—	Polyvinylchloride		
	Color	—	Gray		
	Diameter	mm	2.13	2.20	2.27
Approximate Weight		g/m	5.3		
Indication on the Jacket		—	Pink; refer the margin of the table (as following indication)		

E89328 - A MITSUBISHI RAYON  AWM 5237 80C VW - 1 GHV 4001  
 or E89328 - B MITSUBISHI RAYON  AWM 5237 80C YW - 1 GHV 4001

Sectional View



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## 3. Performances

Table 2

Item		Acceptance Criterion and/or [ Test Condition ]	GHV-4001			
			Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [ in a Dry Atmosphere ]	°C	-55	—	+85
	Operation Temperature	No Deterioration in Optical Properties* [ in a Dry Atmosphere ]	°C	-55	—	+85
		No Deterioration in Optical Properties** [ under 95%RH condition ]	°C	—	—	+75
Optical Properties	Transmission Loss [ 650nm Collimated Light ]	[ 25°C 50%RH ]	dB/km	—	—	170
		[ Operation Temperature ]	dB/km	—	—	190
Mechanical Characteristics	Minimum Bend Radius	Loss Increment $\leq 0.5$ dB [ A Quarter Bend ]***	mm	25	—	—
	Repeated Bending Endurance	Loss Increment $\leq 1$ dB [ 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	70	—	—
	Twisting Endurance	Loss Increment $\leq 1$ dB [ Sample Length : 1m Tensile Force : 4.9N ]	Times	5	—	—
	Impact Endurance	Loss Increment $\leq 1$ dB [ in Conformity to the JIS C 6861 ]	N·m	0.4	—	—

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

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

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\*\*\* In the direction of the minor axis

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