

Specification Sheet

GHV-4002

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

1. Scope

This specification covers basic requirements for the structure and optical performances of GHV-4002.

2. Structure

Table 1

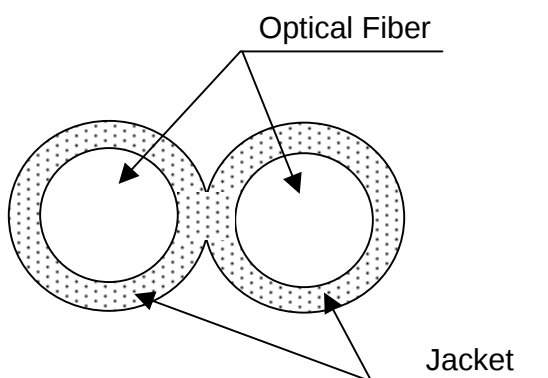
Table 1				GHV-4002		
Item			Specification			
			Unit	Min.	Typ.	Max.
Optical Fiber	Core Material		-	Polymethyl-Methacrylate Resin		
	Cladding Material		-	Fluorinated Polymer		
	Core Refractive Index		-	1.49		
	Refractive Index Profile		-	Step Index		
	Numerical Aperture		-	0.5		
	Core Diameter		μm	920	980	1,040
	Cladding Diameter		μm	940	1,000	1,060
Number of Fibers			-	2		
Jacket	Material		-	Poly-Vinyl-Chloride		
	Color		-	Gray		
	Dimension	Minor Axis	mm	2.13	2.20	2.27
		Major Axis	mm	4.2	4.3	4.4
Approximate Weight			g/m	11		
Indication on the Jacket			-	One of the pair : Pink		

Indication : E89328 - A MITSUBISHI RAYON



AWM 5238 80C VW - 1 GHV4002

Sectional View



3. Performances

Table 2

		GHV-4002				
Item		Acceptance Criterion and/or [Test Condition]	Specification			
			Unit	Min.	Typ.	Max.
Maximum Rating	Storage Temperature	No Physical Deterioration [in a Dry Atmosphere]		-55	-	+85
	Operation Temperature	No Deterioration in Optical Properties* [in a Dry Atmosphere]		-55	-	+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	25	-	-
	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	140	-	-
	Twisting Endurance	Loss Increment 1dB [Sample Length : 1m Tensile Force : 4.9N]	Times	2	-	-
	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.

** Attenuation change shall be within +/- 10% after 1,000 hours, except that due to absorbed water.

*** In the direction of the minor axis

**** Bend Angle +/-90°, Bend Radius 15mm, Tension 1,000g