

Calsak Corporation

Specification Sheet

GHCP4002

Eska Premier

Chlorinated Polyethylene Jacketed

Optical Fiber Cord

High-Performance Plastic Optical Fiber

E s k a™

mitsubishi
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 GHCP4002.
2. Structure

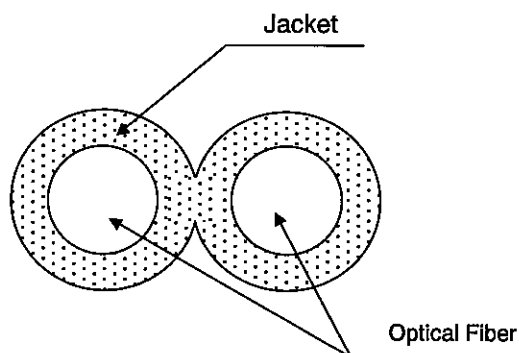
Table 1

GHCP4002

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	1040	
	Cladding Diameter	μm	940	1000	1060	
	Number of fibers	—	2			
Jacket	Material		—	Chlorinated Polyethylene		
	Color		—	Black		
	Dimension	Minor Axis	mm	2.13	2.20	2.27
		Major Axis	mm	4.30	4.40	4.50
Approximate Weight		g/m	11.1			
Indication on the Jacket		—	Blue; refer the margin of the table (as following indication) (One of the Pair)			

Indication : E89328-A MITSUBISHI RAYON  AWM 5310 80C VW-1
 or E89328-B MITSUBISHI RAYON  AWM 5310 80C VW-1

Sectional View



3. Performances

Table 2

		GHCP4002				
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 $\leq 0.5\text{dB}$ [A Quarter Bend]***	mm	25	—	—
	Repeated Bending Endurance	Loss Increment $\leq 1\text{dB}$ [in Conformity to the JIS C 6861]****	Times	10000	—	—
	Tensile Strength	Tensile Force at 5% Elongation; in Conformity to the JIS C 6861]	N	140	—	—
	Twisting Endurance	Loss Increment $\leq 1\text{dB}$ [Sample Length : 1m Tensile Force : 4.9N]	Times	2	—	—
	Impact Endurance	Loss Increment $\leq 1\text{dB}$ [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 500g