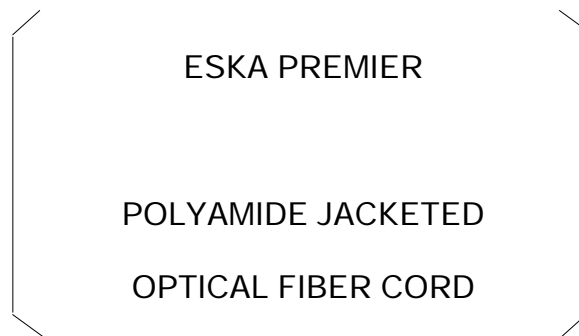


# Specification Sheet

## GHN 4001



High - Performance Plastic Optical Fiber

E s k a<sup>TM</sup>

MITSUBISHI RAYON CO., LTD.  
ESKA OPTICAL FIBER DIVISION

6 - 41 Kounan 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, optical and mechanical performances of GHN 4001.

2. Structure

Table 1

Item		GHN 4001			
		Specification			
		Unit	Min.	Typ.	Max.
Optical Fiber	Core Material	—	Polymetyl - 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 and Color	—	Polyamide 12 ; Black		
	Diameter	mm	2.13	2.20	2.27
	Indication on the Jacket	—	None		
Approximate Weight		g / m	4.5		

Sectional View

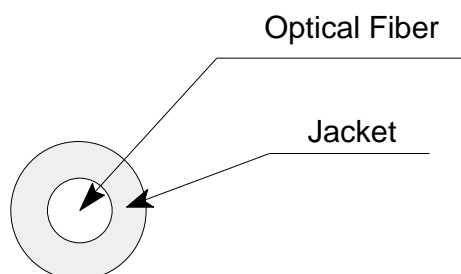


Table 2

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

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

\* Attenuation change shall be within  $\pm 10$  % after 1,000 hours.

\*\* Attenuation change shall be within  $\pm 10$  % after 1,000 hours, expect that due to absorbed water.

The specification is subject to change without notice.

The information contained herein is presented as a guide for the product selection. Please contact our business department for the issue of an official specification sheet.