

Calsak Corporation

Specification Sheet

GHCP4001

Eska Premier

Chlorinated Polyethylene Jacketed

Optical Fiber Cord

High-Performance Plastic Optical Fiber

E s k a™

mitsubishi
RAYON CO.,LTD.

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1. Scope

This specification covers basic requirements for the structure and optical performances of GHCP4001.

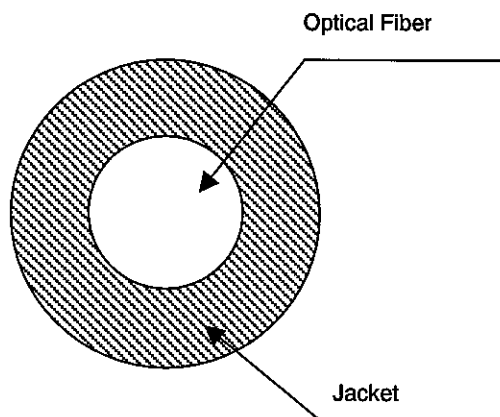
2. Structure

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 | 1040 |
| | Cladding Diameter | μm | 940 | 1000 | 1060 |
| Jacket | Material | — | Chlorinated Polyethylene | | |
| | Color | — | Black | | |
| | Diameter | mm | 2.13 | 2.20 | 2.27 |
| Approximate Weight | | g/m | 5.6 | | |
| Indication on the Jacket | | — | Blue; refer the margin of the table (as following indication) | | |

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

| | | GHCP4001 | | | | |
|-------------------------------|--|--|---------------|-------|------|------|
| 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 | 70 | — | — |
| | Twisting Endurance | Loss Increment $\leq 1\text{dB}$ [Sample Length : 1m Tensile Force : 4.9N] | Times | 5 | — | — |
| | 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.

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