

No

1. Scope

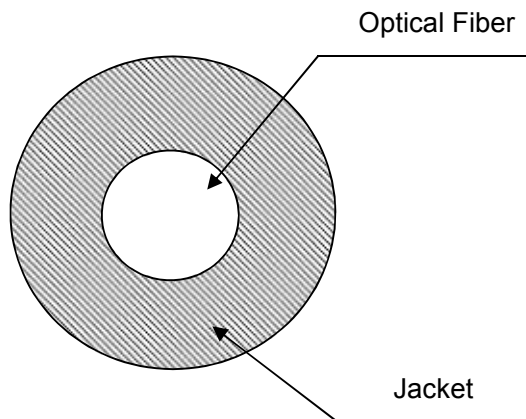
The specification covers basic requirements for the structure and optical performances of BH-4001

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       | —             | 0.58                          |       |       |
|                           | Core Diameter            | μm            | 920                           | 980   | 1,040 |
|                           | Cladding Diameter        | μm            | 940                           | 1,000 | 1,060 |
| Jacket                    | Material                 | —             | Crosslinked Polyethylene      |       |       |
|                           | Color                    | —             | Black                         |       |       |
|                           | Diameter                 | mm            | 2.13                          | 2.18  | 2.23  |
| Approximate Weight        |                          | g/m           | 4                             |       |       |
| Indication on the Product |                          | —             | None                          |       |       |

Sectional View



No

## 3. Performances

Table 2

| Item                          |  | Acceptance Criterion<br>and/or<br>[ Test Condition ]                         | Specification |       |      |      |
|-------------------------------|--|--|---------------|-------|------|------|
|                               |  |  | Unit          | Min.  | Typ. | Max. |
| Maximum<br>Rating             | Storage<br>Temperature                             | No Physical Deterioration<br>[ in a Dry Atmosphere ]                         | °C            | -55   | —    | +105 |
|                               | Operation<br>Temperature                           | No Deterioration<br>in Optical Properties*<br>[ in a Dry Atmosphere ]        | °C            | -55   | —    | +105 |
|                               |  | No Deterioration<br>in Optical Properties**<br>[ under 95%RH condition ]     | °C            | —     | —    | +85  |
| Optical<br>Properties         | Transmission Loss<br>[ 650nm<br>Collimated Light ] | [ 25°C 50%RH ]   | dB/km         | —     | —    | 200  |
|                               |  | [ Operation Temperature ]  | dB/km         | —     | —    | 250  |
| Mechanical<br>Characteristics | Minimum<br>Bend Radius                             | Loss Increment $\leq 0.5$ dB<br>[ A Quarter Bend ]                           | mm            | 15    | —    | —    |
|                               | Repeated Bending<br>Endurance                      | Loss Increment $\leq 1$ dB<br>[ in Conformity to the<br>JIS C 6861 ]***      | Times         | 1,000 | —    | —    |
|                               | Tensile Strength                                   | Tensile Force at 5% Elongation<br>[ in Conformity to the JIS C 6861<br>]     | N             | 70    | —    | —    |
|                               | Twisting Endurance                                 | Loss Increment $\leq 1$ dB<br>[ Sample Length : 1m<br>Tensile Force : 4.9N ] | Times         | 5     | —    | —    |
|                               | Impact Endurance                                   | Loss Increment $\leq 1$ dB<br>[ in Conformity to the<br>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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\*\*\* Bend Angle +/-90°, Bend Radius 15mm, Tension 500g

The specifications is subject to change without notice.

The information contained herein is presented as guide for the product selection.

Please contact our business department for the issue of an official specification sheet.