## ESKA ${ }^{\text {TM }}$ Polyethylene Jacketed Optical Fiber Cord: BH4001

Manufactured by Mitsubishi Rayon Co., Ltd

## SPECIFICATIONS

## Structure

| Core Material | Polymethyl Methacrylate Resin (PMMA) |  |
| :--- | :--- | :---: |
| Cladding Material | Fluorinated Polymer |  |
| Core Refractive Index | 1.49 |  |
| Refractive Index Profile | Step Index |  |
| Numerical Aperture | 0.58 |  |
|  | Unit | Typical |
| Core Diameter | $\mu \mathrm{m}$ | 980 |
| Cladding Diameter | $\mu \mathrm{m}$ | 1,000 |
| Jacket Diameter | mm | 2.18 |
| Approximate Weight | $\mathrm{g} / \mathrm{m}$ | 3.8 |



## Applications: Lighting

The BH-Series of single-jacketed cables are typically used as data and sensor media for higher temperature requirements.

## Packaging

| Spool Length (m) | 500 |
| :--- | :---: |
| Net weight on spool (kg) | 3.1 |
| Spool Weight (kg) | 1.2 |
| Carton Size (mm) | $370 \times 370 \times 170$ |
| Carton Weight (kg) | 3.8 |
| Master Carton | 5 spools |
| Jacket |  |
| Color and Material | None |
| Indication on Jacket |  |


| Performance |  | Criteria for <br> Acceptance and/or [Test Conditions] | Unit | Values |
| :---: | :---: | :---: | :---: | :---: |
| Operation Temperature |  | No deterioration in optical properties [in a dry atmosphere] * | ${ }^{\circ} \mathrm{C}$ | -55 ~ 105 |
| Operating Temperature in a Moist Atmosphere |  | No deterioration in optical properties [under 95\% RH] ** | ${ }^{\circ} \mathrm{C}$ | Max. 85 |
| Optical Properties | Transmission Loss [650nm Collimated Light] | [ $25^{\circ} \mathrm{C} 50 \% \mathrm{RH}$ ] | dB/km/km | Max. 200 |
|  |  | [Operation Temperature] | dB/km/km | Max. 250 |
|  | Minimum Bend Radius | Loss increment $=<0.5 \mathrm{~dB}$ [quarter bend] | mm | Min. 15 |
| Mechanical Characteristics | Repeated Bending Endurance | Loss increment $=<1 \mathrm{~dB}$ [in conformity to the JIS C 6861] ${ }^{\text {** }}$ | Times | Min.1,000 |
|  | Tensile Strength | [Tensile force at $5 \%$ elongation; in conformity to JIS C 6861] | N | Max. 70 |
|  | Twisting Endurance | Loss Increment $=<1 \mathrm{~dB}$ [sample length: <br> 1 m , Tensile Force: 4.9 N ] | Times | Min. 5 |
|  | Impact Endurance | Loss Increment $=<1 \mathrm{~dB}$ [in Conformity to the JIS C 6861] | $N \bullet m$ | Min. 0.4 |

Notes: Performance tested in conditions under $25^{\circ} \mathrm{C}$ unless otherwise indicated

* Attenuation increase shall be $<10 \%$ after 1,000 hours.
** Attenuation increase shall be $<10 \%$ after 1,000 hours, except when due to absorbed water.
*** Bend Angle $+/-90^{\circ}$, Bend Radius 15 mm , Tension 500 g .

The information contained herein is presented as a guide to product selection. It is subject to change without notice, and should not be regarded as a representation, warranty or guarantee with regard to the quality, characteristics or use of this product

