

# ESKA™ Polyethylene Jacketed Plastic Optical Fiber Bundle Cord: SH1032

Manufactured by Mitsubishi Chemical Corporation  
Marketed and sold by Mitsubishi International PolymerTrade Corporation

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| Structure                |                                      |         |
|--------------------------|--------------------------------------|---------|
| Core Material            | Polymethyl Methacrylate Resin (PMMA) |         |
| Cladding Material        | Fluorinated Polymer                  |         |
| Core Refractive Index    | 1.49                                 |         |
| Refractive Index Profile | Step Index                           |         |
| Numerical Aperture       | 0.5                                  |         |
|                          | Unit                                 | Typical |
| Core Diameter            | μm                                   | 255     |
| Cladding Diameter        | μm                                   | 265     |
| Number of Fibers Bundled | 32                                   |         |
| Jacket Diameter          | mm                                   | 2.8     |
| Approximate Weight       | g/m                                  | 6.2     |

| Packaging                |                     |
|--------------------------|---------------------|
| Spool Length (m)         | 500                 |
| Net weight on spool (kg) | 4.3                 |
| Spool Weight (kg)        | 1.2                 |
| Carton Size (mm)         | 365 X 365 X 160     |
| Carton Weight (kg)       | 4.9                 |
| Master Carton            | 5 spools            |
| Jacket                   |                     |
| Color and Material       | Black, Polyethylene |
| Indication on Jacket     | SUPER ESKA; Blue    |

| Performance                                 |  | Criteria for Acceptance and/or [Test Conditions]                  | Unit  | Values    |
|---|--|---|-------|-----------|
| Operation Temperature                       |  | No deterioration in optical properties [in a dry atmosphere]*     | °C    | -55 ~ 70  |
| Operating Temperature in a Moist Atmosphere |  | No deterioration in optical properties [under 95% RH]**           | °C    | Max.60    |
| Optical Properties                          | Transmission Loss [650nm Collimated Light] | [25°C 50% RH]   | dB/km | Max.650   |
|   |  | [Operation Temperature]   | dB/km | Max.700   |
| Mechanical Characteristics                  | Minimum Bend Radius                        | Loss increment =< 0.5dB [a quarter bend]                          | mm    | Min.32    |
|   | Repeated Bending Endurance                 | Loss increment =< 1 dB [in conformity to the JIS C 6861]***       | Times | Min.1,000 |
|   | Tensile Strength                           | [Tensile force at 5% Elongation; in conformity to the JIS C 6861] | N     | Min.70    |
|   | Twisting Endurance                         | Loss Increment =< 1 dB [sample length: 1m, Tensile Force: 4.9N]   | Times | Min.5     |
|   | Impact Endurance                           | Loss Increment =< 1 dB [in Conformity to the JIS C 6861]          | N · m | -         |

Notes: Performance tested in conditions under 25°C unless otherwise indicated.

\* Attenuation increase shall be <10% after 1,000 hours.

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

## Applications

The SH-Series of single-jacket cables are typically used as data transfer media and sensor media.

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