ESKA™ Polyethylene Jacketed Optical Fiber Cord: SH2002

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	485
Cladding Diameter	μm	500
Number of Fibers	2	
Jacket Dimension - Minor Axis	mm	1.0
Jacket Dimension – Major Axis	mm	2.0
Approximate Weight	g/m	1.6

Packaging	
Spool Length (m)	500
Net weight on spool (kg)	2.0
Spool Weight (kg)	1.2
Carton Size (mm)	365 X 365 X 160
Carton Weight (kg)	2.6
Master Carton	5 spools
Jacket	
Color and Material	Black, Polyethylene
Indication on Jacket	White Line

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.210
		[Operation Temperature]	dB/km	Max.230
Mechanical Character-istics	Minimum Bend Radius	Loss increment =< 0.5dB [a quarter bend]***	mm	Min.10
	Repeated Bending Endurance	Loss increment =< 1 dB [in conformity to the JIS C 6861]****	Times	Min.10,000
	Tensile Strength	[Tensile force at yield point; in conformity to the JIS C 6861]	N	Min.36
	Twisting Endurance	Loss Increment =< 1 dB [sample length: 1m, Tensile Force: 4.9N]	Times	Min.2
	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.
** Attenuation increase shall be <10% after 1,000 hours, except when due to absorbed water.
*** In the direction of the minor axis.
**** Bend Angle +/-90° , Bend Radius 15mm, Tension 1,000g.

Applications

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

Mitsubishi International PolymerTrade Corporation

2 Penn Plaza East, 11th Floor, Newark, NJ 07105