ESKA™ Plastic Optical Fiber: CK40

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	980
Overall Diameter	µm	1,000
Approximate Weight (g/m)	1.0	

Packaging	
Spool Length (m)	1,500
Net weight on spool (kg)	2.2
Spool Weight (kg)	0.66
Carton Size (mm)	286 X 286 X 130
Carton Weight (kg)	2.8
Master Carton	10 spools

Performance		Criteria for Acceptance and/or [Test Conditions]	Unit	Values
Storage and 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]	[Standard Condition] [10m-1m cutback]	dB/km	Max.200
Mechanical Character-istics	Minimum Bend Radius	Loss increment =< 0.5dB [quarter bend]	mm	Min.25
	Tensile Strength	Tensile force at yield point [JIS C 6861]	N	Min.65

Notes: Performance tested in conditions under 25°C unless otherwise indicated
* Attenuation increase shall be <10% after 1,000 hours
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CK40-C Cut Bristles

Straight, one-meter long fibers with no memory curve, manufactured in the U.S. using ESKA™

Diameter(µm)	Length (mm)	Number bristles per pack
500	1,000	1,500 +0/-2%

Applications: Lighting

CK grade fibers are typically used for lighting environments and illuminating applications.

Product Testing

The CK-Series of fibers is a tested and qualified, but has unspecified tolerances and typical values. The information contained in this document should, therefore, only be used as a guide.

Mitsubishi International PolymerTrade Corporation

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