

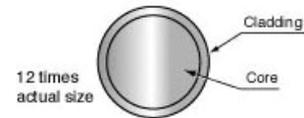
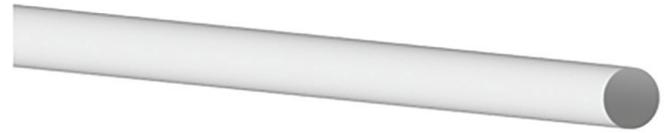
# ESKA™ Plastic Optical Fiber: CK 120

Manufactured by Mitsubishi Chemical Corporation

## SPECIFICATIONS

### Structure

Core Material	Polymethyl Methacrylate Resin (PMMA)	
Cladding Material	Fluorinated Polymer	
Core Refractive Index	1.49	
Refractive Index Profile	Step Index	
Numerical Aperture	0.5	
	Unit	Typical
Core Diameter	μm	2,945
Overall Diameter	μm	3,000
Approximate Weight (g/m)	8.6	



**Sectional View**

### 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.

### Packaging

Spool Length (m)	150
Net weight on spool (kg)	1.3
Coil Weight (kg)	-
Carton Size (mm)	405 X 410 X 75
Carton Weight (kg)	1.6
Master Carton	10 coils

### CK120-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	1000	300 +0/-3%

## Performance

		Criteria for Acceptance and/or [Test Conditions]	Unit	Values
<b>Storage and Operation Temperature</b>		No deterioration in optical properties [in a dry atmosphere] *	°C	-5~77
<b>Operating Temperature in a Moist Atmosphere</b>		No deterioration in optical properties [under 95% RH] **	°C	Max. 60
<b>Optical Properties</b>	Transmission Loss [650nm Collimated Light]	[Standard Condition] [10m-1m cutback]	dB/km/km	Max. 200
<b>Mechanical Characteristics</b>	Minimum Bend Radius	Loss increment =< 0.5dB [quarter bend]	mm	Max. 100
	Tensile Strength	Tensile force at yield point [JIS C 6861]	N	Max. 550

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