MICA LIGHTING COMPANY, INC

Project Name:

Submittal

END LIGHT FIBER OPTIC CABLE

Fixture Type:
FIBER OPTIC LIGHTING

Approvals:

Date:

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Product Information:

Mitsubishi ESKA Fiber Used Exclusively

Core: Transparent polymethyl methacrylate (PMMA)

Outer Jacket: Transparent cladding material

Outside Diameter (O.D.): 0.25mm – 3.00mm

Spool Length: See chart

Bend Radius: Minimum 6 x fiber diameter

Acceptance Angle: 60

Refractive Index: 1.49

Numeric Aperture: 0.50

Attenuation: Less then 1.6% per foot

Operating Temperature Range: Minimum -67°F (-55°C)
Maximum 158°F (70°C)

Weather resistance: Composed mainly of PMMA**,** ESKA fiber possesses outstanding weather ability.

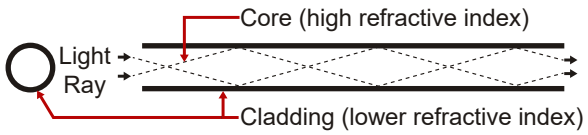
Chemical Resistance: Attacked by organic solvents (e.g. acetone, thinners, ethyl acetate, gasoline, benzene, and toluene).

Adhesives: Use room temperature curing, two-component epoxy adhesive which does not use an amine hardener, is recommended. Solvent based adhesives should not be used, as they can damage the fiber.

Note: The fiber's function is transmission of light, and therefore is not designed to bear heavy loads. Care must be taken not to place excessive weight on the fiber.

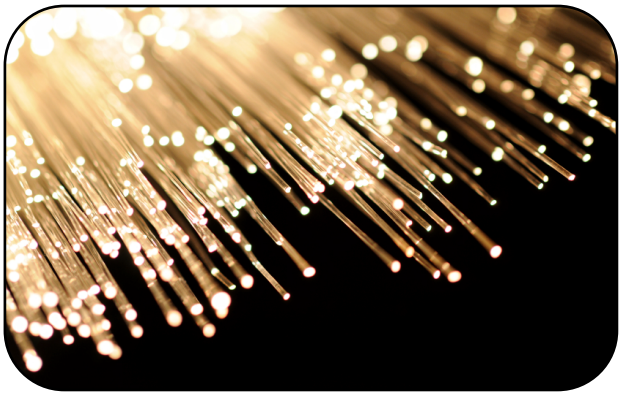
Item No.	Actual Size	Fiber Diameter	Spooled Fiber length	Use
ES10		0.25 mm	12,000 m (39,372 ft.)	*Show window display wall display, etc.*
ES20		0.30 mm	6,000 m (19,686 ft.)	
ES30		0.75 mm	2,700 m (8,858 ft.)	*Store-front sign, hanging sign, etc.*
ES40		1.0 mm	1,500 m (4,922 ft.)	
ES60		1.5 mm	700 m (2,296 ft.)	*Medium & large sized sign, rooftop sign wall sign, etc.*
ES80		2.0 mm	250 m (820 ft.)	
ES100		2.5 mm	250 m (820 ft.)	
ES120		3.0 mm	150 m (492 ft.)	

Structure of Optical Fiber:



Applications:

- Star Ceilings
- Floor and Counter Tops
- Interior and Exterior Signage
- P.O.P. Displays
- Scale Models
- Floral Displays
- Waterfalls
- Aquarium Underwater Spectacles
- For the special hobby project



The end of light fiber is a total reflection type, with a concentric double structure, consisting of a high reflective index transparent core, made from polymethyl methacrylate (PMMA) converted with a thin layer of a special transparent cladding material of low reflective index.

The light entering from one end is transmitted, repeating the total reflection at the interface of the two components, and then discharged from the opposite end.

The fiber's properties and features of resiliency, transmission of colored light, with no short circuits or sparks provides many opportunities to support new concepts, and will help designers to fully utilize their creativity.

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