









Item No.	Actual size	Fiber diameter	Fiber length on spool	Use
ES10		0.25 mm	12,000 m (39,372 ft.)	Show window display, wall display, etc.
ES20		0.50 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, roof top 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.)	



Specifications

Core: Transparent polymethyl methacrylate (PMMA)

Outer Jacket: Transparent cladding material

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

Spool Length: See chart above

Bend Radius: Minimum 6 x fiber diameter

Acceptance Angle: 60

Refractive Index: 1.49

Numeric Aperture: 0.50

Attenuation: Less than 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

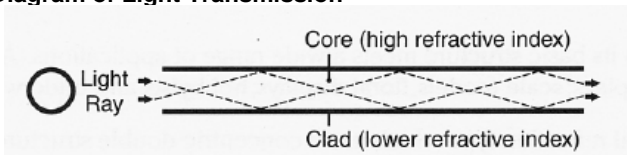
possesses outstanding weather ability.

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.

Structure of Optical Fiber and Diagram of Light Transmission



The end light fiber is of the total reflection type which has a concentric double structure consisting of a core of transparent polymethyl methacrylate (PMMA) of high reflective index, converted with a thin layer of 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 other end.

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

Applications

- Star Ceilings
- Floor and Counter tops
- Interior and exterior signage
- P.O.P displays
- Scale models
- Floral displays
- Waterfalls
- Underwater spectacles in aquariums
- For the special hobby project