
END LIGHT FIBRE OPTIC CABLE



- Indoor/ Outdoor Applications
- Black, Flexible Jacket
- Long Life Flexibility
- Environmentally Friendly
- Wide range of applications

Poly Optic Solid Core Fibre **Standard Grade Technical Specifications:**

1. Mechanical Characteristics:

- Optical Core Composition: Solid optical gel core made from optically pure case acrylic monomers, including MMA, to ensure flexibility, and superior light transmission.
- Cladding Composition: The optical core is clad in a sheath of clear Teflon.
- Bend Radius: Less than 6x diameter.
- Spool length: up to 300 metres (1000 ft.), or cut to order.
- Optic Sizes Available:

Product Code	Size O.D.	Core O.D.	FEP Wall	Tolerance	OD with Poly Jacket
POLY 30	3.0 mm	2.6 mm	.20 mm	+/- 0.3 mm	3.8 mm
POLY 40	4.0 mm	3.5 mm	.25 mm	+/- 0.3 mm	4.8 mm
POLY 55	5.5 mm	4.7 mm	.4 mm	+/- 0.4 mm	7.3 mm
POLY 65	6.5 mm	5.7 mm	.4 mm	+/- 0.4 mm	8.1 mm
POLY 70	7.0 mm	6.2 mm	.4 mm	+/- 0.4 mm	8.6 mm
POLY 90	9.0 mm	8.2 mm	.4 mm	+/- 0.5 mm	10.5 mm
POLY 100	10.0 mm	9.2 mm	.4 mm	+/- 0.5 mm	11.5 mm
POLY 120	12.0 mm	11.0 mm	.5 mm	+/- 0.5 mm	14.0 mm
POLY 140	14.0 mm	13.0 mm	.5 mm	+/- 0.5 mm	16..5 mm

2. Optical Characteristics:

- Spectral Range: 370 to 690 nm – visible wavelength range.
- Acceptance Angle: 45°
- Numerical Aperture: 0.68
- Glass transition Temperature: 53.8°C (129°F)
- Attenuation: Less than 3% per metre
- Tested by NATA: (National Association of Testing Authorities).**

3. Environmental Characteristics:

- Thermal Stability: Core to 120°C (248°F). Cladding to 390°C (734°F).
- Operating Temperature Range: Minimum: -40°C (-104°F)
Maximum: +120°C (+248°F)
- Moisture Absorption: Core composition is hygroscopic. Optics ends must be sealed to avoid absorption.
- Chemical Resistance: Teflon cladding is chemically resistant and impervious to solvents. *Core is affected by strong solvents.*
- Storage: Dark/dry location where temperature is within specifications.
- Warranty: **1 year when installed to manufacturers specifications.**

Poly Optics Australia Pty. Ltd.

sales@fiberopticlight.com

Website: www.fiberopticlight.com

Ph: +61 7 55 20 2222

Fax: +61 7 55 20 2255