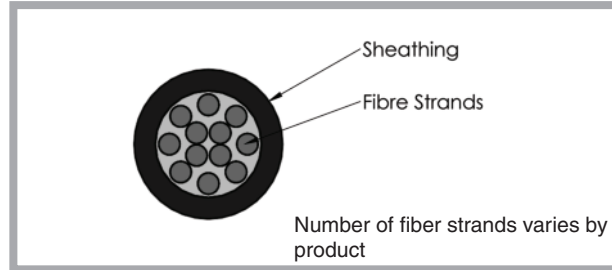


Fiber Harness Specification



End Lit PMMA Fiber Harnesses



Optical fiber harnesses with a black sheathing

Strands of fiber in a black plastic coating which holds the bundle together and protects the fiber in arduous conditions. The fiber can be terminated with ferrules for use with end fittings. For stary effects the sheathing can be stripped back and the individual fibers fanned out to give small points of light.

Fiber Specifications

Core material: Polymethyl Methacrylate

Cladding material: Fluorinated Polymer

Refractive index: 1.49

Numerical aperture: 0.5

Refractive index profile: step index

Operation temperature range: -55°C to +70°C in low humidity; <60°C at 95% RH (attenuation change is within 10% after 1000 hours except for that due to absorbed water). Please note that fibre can become brittle at lower temperatures.

Sheathing Specifications

Outer sheathing material TP519 is a thermoplastic low-smoke halogen-free flame retardant compound with low toxic fume emission.

TP519 toxicity index NES713: 1.3

TP519 halogen acid gas evolution BS EN 50267-2-1: <0.5%

TP519 smoke emission 3m cube test BS 7622: Pass

Size	Approximate active diameter	Approximate outer diameter	Max. no. of tails per light source	Minimum Bend Radius	Termination type(s)
1	0.75mm (0.03")	unsheathed / 2mm (0.08")	1100	10mm / 15mm (0.4" - 0.6")	- / crimp
1	1mm (0.04")	unsheathed / 2.2mm (0.09")	560	15mm / 20mm (0.6" - 0.8")	- / crimp
1	1.5mm (0.06")	unsheathed / 2.6mm (0.1")	250	25mm / 40mm (1" - 1.6")	- / crimp
1	2mm (0.08")	unsheathed / 3mm (0.12")	150	30mm / 60mm (1.2" - 2.4")	- / crimp
7	2.3mm (0.09")	4.5mm (0.18")	115	20mm (0.8")	- / M8 / M10 ferrule
12	3.1mm (0.12")	4.5mm (0.18")	65	25mm (1")	- / M8 / M10 ferrule
25	4.3mm (0.17")	6.3mm (0.26")	38	30mm (1.2")	- / M8 / M10 ferrule
33	5mm (0.2")	7.1mm (0.3")	25	50mm (2")	- / M8 / M10 ferrule
50	6mm (0.25")	8.7mm (0.35")	17	60mm (2.4")	- / M8 / M10 ferrule
67	7mm (0.3")	10.5mm (0.4")	12	80mm (3.1")	- / M10 ferrule
75	7.5mm (0.32")	10.5mm (0.4")	11	90mm (3.5")	- / M10 ferrule
88	8mm (0.34")	10.5mm (0.4")	10	100mm (4")	- / M10 ferrule