

ILLUMINATI'S POLYMER FIBER HARNESS

OPTICAL FIBER HARNESES WITH A BLACK SHEATHING

Strands of fibre in a black plastic coating which holds the bundle together and protects the fibre in arduous conditions. The fibre can be terminated with ferrules for use with end fittings. For starry effects the sheathing can be stripped back and the individual fibres 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

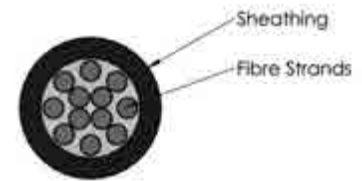
Outer sheathing material TP519 is a thermoplastic low-smoke halogen-free flame retardant compound with low toxic fume emission.

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

Specifier's Reference
Project
Type
Model No.
Comments or Special Instructions



Number of fibre strands varies by product

Size	Approximate active diameter	Approximate outer diameter	Max. no. of tails per light source	Minimum Bend Radius	Termination type(s)
1	0.75mm	unsheathed / 2mm	1100	10mm / 15mm	- / crimp
1	1mm	unsheathed / 2.2mm	560	15mm / 20mm	- / crimp
1	1.5mm	unsheathed / 2.6mm	250	25mm / 40mm	- / crimp
1	2mm	unsheathed / 3mm	150	30mm / 60mm	- / crimp
7	2.3mm	4.5mm	115	20mm	- / M8 / M10 ferrule
12	3.1mm	4.5mm	65	25mm	- / M8 / M10 ferrule
25	4.3mm	6.3mm	38	30mm	- / M8 / M10 ferrule
33	5mm	7.1mm	25	50mm	- / M8 / M10 ferrule
50	6mm	8.7mm	17	60mm	- / M8 / M10 ferrule
67	7mm	10.5mm	12	80mm	- / M10 ferrule
75	7.5mm	10.5mm	11	90mm	- / M10 ferrule
88	8mm	10.5mm	10	100mm	- / M10 ferrule