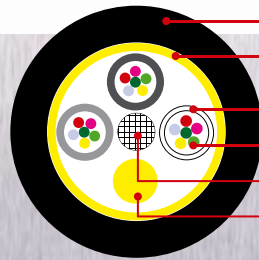
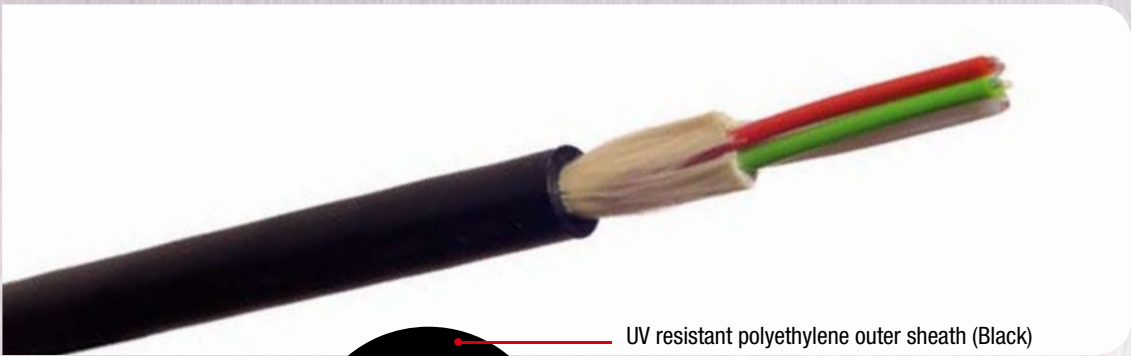


# Short Span Aerial Optic Fibre

**MEGANet™ SHORT SPAN AERIAL OPTIC FIBRE is constructed of fibres inside multiple gel filled loose tubes. The cable is strengthened by a glass reinforced plastic strength member (GRP), encased in layers of aramid yarn and a polyethylene outer sheath.**



- UV resistant polyethylene outer sheath (Black)
- Aramid yarn peripheral strength member (*contra-helically in layers*)
- PBT loose tube (Thixotropic gel filled)
- Colour coded fibres
- Glass reinforced plastic centre strength member (GRP)
- Yellow filler

## FEATURES

- > LIGHTspeed SHORT SPAN AERIAL cable is designed for installation on pole routes with spans up to 100m.
- > Short span aerial cable may also be used in a duct environment to avoid unnecessary splicing at the ends of self supporting routes.
- > Ease of installation, due to its lightweight and self-supporting characteristics.
- > A non-metallic construction ensures lightning immunity.
- > Short span aerial cable is constructed with high modulus, creep resistant, aramid strength members which enable the cable to withstand sustained everyday stress, as well as the high loading during environmental extremes. The aramid yarn is applied contra-helically in layers to eliminate torsion stress.
- > The smooth circular profile inhibits galloping, and the gel in the tubes provides additional protection against vibration, ensuring excellent optical reliability for all service conditions.
- > Extensive cable/clamp compatibility tests were carried out to ensure optimum load transfer properties over a wide temperature range. We recommend only approved installation hardware.

# Short Span Aerial Optic Fibre

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## TYPICAL PROPERTIES

### NON-METALLIC SELF-SUPPORTING CABLE ON POLE ROUTES

Parameter	Property Values			Test Method
Fibre count	2 to 24	36 & 48	96	
Number of elements	4	8	8	
Cable diameter (nominal)	9.4 mm	11.8 mm	14.5 mm	
Cable weight (nominal)	63 kg/km	115 kg/km	160 kg/km	
Maximum installation load (EDS) (Based on 70 m span, 0.5 m sag)	600 N	1000 N	1900 N	IEC 60794-1-E1
Maximum working load (Anticipating no ice, and winds up to 125 km/h)	1350 N	1650 N	2500 N	IEC 60794-1-E1
Minimum bend radius	113 mm	145 mm	174 mm	IEC 60794-1-E11
Crush resistance (via 100 mm plates)	2000 N			IEC 60794-1-E3
Long term creep test (10 days)	< 0.1 % cable length increase			Internal
Cable/Termination clamp compatibility (up to 70 °C)	100 % load transfer			Internal
Impact resistance (25 mm ANVIL/10 blows)	2 Nm Blows			IEC 60794-1-E4
Temperature performance	-20 to +70 °C			IEC 60794-1-F1
Drip test (300 mm sample of loose tube @ 80 °C)	No leakage			IEC 60794-1-E14

## OPTICAL PROPERTIES

FIBRE TYPE	SINGLE MODE (SM)		MULTI MODE (MM)	
	9/125 µm		50/125 µm	
Specification	ITU-T G. 652D		ITU-T G. 651	
Fibre core size	9.2 ± 0.4 µm (Mode field diameter @ 1310 nm) 10.3 ± 0.5 µm (Mode field diameter @ 1550 nm)		50 µm	
Cladding diameter	125 µm		125 µm	
Primary coating diameter	245 µm		245 µm	
Operating wavelength	1310 nm	1550 nm	850 nm	1300 nm
Max attenuation	0.37 dB/km	0.24 dB/km	2.8 dB/km	0.9 dB/km
Bandwidth	-	-	500 MHz.km	500 MHz.km
Max dispersion	3 ps/nm.km	18 ps/nm.km	-	-
PMDQ	0.2ps/km <sup>2</sup>		-	

(Alternative fibre types/properties are available on request)