CBi electric Telecom Cables (Pty) Ltd
3 Marthinus Ras Street, Brits, North West
Tel : 012 381 1400
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LONG SPAN AERIAL FIBRE OPTIC CABLE (Anti-track)

APPLICATION

- Self Supporting All Dielectric
- Spans up to 500m (No Ice loading)
- Power Utilities Distribution

LSA 500 CABLES

CONSTRUCTION

GRP/FRP	Glass reinforced plastic central strength, over sheathed in certain cases
LOOSE TUBE	PBT (Polybutylene Terephthalate) filled with thixotropic gel
FIBRES	*6 to 8 colour coated fibres per tube
PERIPHERAL STRENGTH MEMBER	Aramid (Optimized load transfer between aramid and sheath)
SHEATHING	Polyethylene (Anti-track UV resistant sheath)

MECHANICAL PROPERTIES

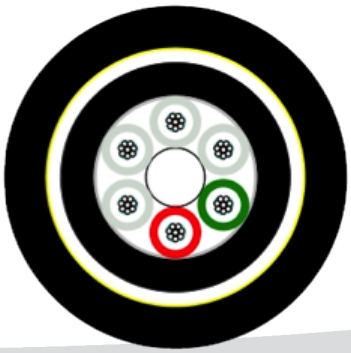
FIBRE COUNT	NUMBER OF ELEMENTS	CABLE DIAMETER NOMINAL (mm)	CABLE WEIGHT (kg/km)	MAXIMUM INSTALLATION LOAD (N)	OPERATION TEMPERATURE RANGE	BENDING RADIUS	
						LONG TERM	SHORT TERM
Up to 30	5 (*6 fibres/tube)	13.2	145	4000	-10°C to 70°C	20 x OD	12 x OD
48	6 (*8 fibres/tube)	14.5	175	4000	-10°C to 70°C	20 x OD	12 x OD

SAG AND TENSION CALCULATIONS (Max installation load)

SPAN	200m	300m	400m	500m
Up to 24F Normal Sag (m)	1.8	4.0	7.0	11.0
48F Normal Sag (m)	2.1	4.8	8.5	13.2

FIBRE AS PER TIA/EIA

1	Blue	2	Orange	3	Green	4	Brown	5	Grey	6	White
7	Red	8	Black								



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TUBE USES REFERENCE COLOUR MARKING

First Tube	Red	Inbetween tubes	Natural	Last Tube	Green

ORDERING INFORMATION

FIBRE COUNT	CABLE TYPE	FIBRE TYPE ITU-T	DRUM QUANTITY (m)
24	Long Span Aerial (LSA 500)	G657.A1	4000

OPTICAL PROPERTIES

Modefield Diameter (µm)	1310nm	9.2 ± 0.4	9.2 ± 0.4
	1550nm	10.4 ± 0.5	10.4 ± 0.5
Cabled Attenuation (dB/km)	1310nm	≤ 0.34	± 0.34
	1550nm	≤ 0.20	± 0.20
Polarization Mode Dispersion (ps/√km)	Link (PMDQ)	≤ 0.04	≤ 0.04
	Individual (PMDmax)	≤ 0.1	≤ 0.1
Chromatic Dispersion (ps/nm.km)	1285-1330nm	| 3 |	| 3 |
	1550nm	≤ 18	≤ 18
	1625nm	≤ 22	≤ 22
Macro-Bend Loss	1550nm	Ø32mm, 1turn, ≤ 0.03dB	Ø10mm, 1turn, ≤ 0.5dB
		Ø50mm, 100turns, ≤ 0.03dB	Ø15mm, 10turns, ≤ 0.05dB
			Ø25mm, 100turns, ≤ 0.01dB
	1625nm		Ø10mm, 1turn, ≤ 1.5dB
			Ø15mm, 10turns, ≤ 0.3dB
		Ø50mm, 100turns, ≤ 0.03dB	Ø25mm, 100turns, ≤ 0.01dB
Cladding Diameter (µm)		125 ± 0.7	125 ± 0.7
Cladding Non Circulatory (%)		≤ 0.7	≤ 1
Core-Clad Concentricity (µm)		≤ 0.5	≤ 0.6
Cable Cut-Off Wavelength (nm)		≤ 1260	≤ 1260
Local Variations : Cabled (dB)		≤ 0.1@1550nm	≤ 0.1@1550nm