

## ARMOUR TUBE FIBRE OPTIC CABLE (Corrugated Steel Tape)

### APPLICATION

- ◆ Direct buried, trench and duct installation
- ◆ Backbone and Access
- ◆ Rodent resistant

ARM CABLES

### CONSTRUCTION

MONO OR SINGLE TUBE	PBT (Polybutylene Terephthalate) filled with thixotropic gel
FIBRES	Max of 12 colour coated fibres per tube
WATER BLOCKING	Core wrapping and overall
PERIPHERAL STRENGTH MEMBER	Aramid
BEDDING SHEATH	PVC (Polyvinyl chloride)
ARMOUR	Corrugated steel tape
SHEATHING	PVC – Polyvinyl Chloride or LSZH – Low Smoke Zero Halogen

### MECHANICAL PROPERTIES

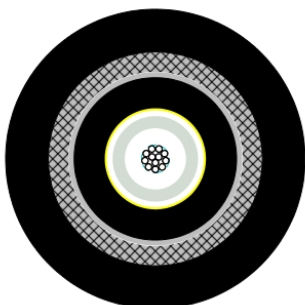
FIBRE COUNT	NUMBER OF ELEMENTS	CABLE DIAMETER NOMINAL (mm)	CABLE WEIGHT (kg/km)	MAXIMUM INSTALLATION LOAD (N)	OPERATION TEMPERATURE RANGE	BENDING RADIUS		SUITABLE DUCT SIZE
						LONG TERM	SHORT TERM	
12	1	11.2	135	2000	-10°C to 70°C	20 x OD	12 x OD	32/26

### FIBRE AND BUFFER COLOURS AS TIA/EIA

1	Blue	2	Orange	3	Green	4	Brown	5	Grey	6	White
7	Red	8	Black	9	Yellow	10	Violet	11	Pink	12	Turquoise

### ORDERING INFORMATION

FIBRE COUNT	CABLE TYPE	FIBRE TYPE ITU-T	DRUM QUANTITY (m)
24	Corrugated Steel Tape (CST)	G657.A1	4000



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### OPTICAL PROPERTIES (Bend tolerant Multi-Mode)

CHARACTERISTICS		ITU-T G.651 OM2	ITU-T G.651 OM3	ITU-T G.651 OM4
Fibre Core Diameter (µm)		50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Cabled Attenuation (dB/km)	850nm	≤ 3	≤ 2.5	≤ 2.5
	1300nm	≤ 1	≤ 0.7	≤ 0.7
Macro-Bend Loss	850nm	Ø15mm, 2turns, ≤ 0.2dB	Ø15mm, 2turns, ≤ 0.2dB	Ø15mm, 2turns, ≤ 0.2dB
		Ø30mm, 2turns, ≤ 0.1dB	Ø30mm, 2turns, ≤ 0.1dB	Ø30mm, 2turns, ≤ 0.1dB
		Ø75mm, 100turns, ≤ 0.05dB	Ø75mm, 100turns, ≤ 0.05dB	Ø75mm, 100turns, ≤ 0.05dB
	1300nm	Ø15mm, 2turns, ≤ 0.5dB	Ø15mm, 2turns, ≤ 0.5dB	Ø15mm, 2turns, ≤ 0.5dB
		Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB	Ø30mm, 2turns, ≤ 0.3dB
		Ø75mm, 100turns, ≤ 0.15dB	Ø75mm, 100turns, ≤ 0.15dB	Ø75mm, 100turns, ≤ 0.15dB
Bandwidth	High Performance EMB* (MHz.km)	950@850nm -	2000@850nm -	4700@850nm -
	Legacy Performance EMB** (MHz.km)	700@850nm 500@1300nm	1500@850nm 500@1300nm	3500@850nm 500@1300nm
Optimised Data Rate over Distance	-	-	40/100 Gb/s over 140m***	40/100 Gb/s over 170m***
	10 Gb/s over 150m	-	10 Gb/s over 300m	10 Gb/s over 550m
	1 Gb/s over 750m	-	1 Gb/s over 1000m	1 Gb/s over 1100m
Cladding Diameter (µm)		125 ± 1	125 ± 1	125 ± 1
Cladding Non Circulatory (%)		≤ 1	≤ 1	≤ 1
Core-Clad Concentricity (µm)		≤ 1.5	≤ 1.5	≤ 1.5
Cable Cut-Off Wavelength (nm)		-	≤ 1260	≤ 1260

\* Ensured via minEMBc per TIA 455-22A and IEC 60793-1-49, for high performance laser-based systems (up to 100Gb/s)

\*\* OFLBW, per TIA/EIA 455-2-4 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100Mb/s)

\*\*\* Distances specified in the 40G/100G per IEEE 802.3ba standard are 150m for OM4 and 100m for (For these distances cabled attenuation ≤ 3.0dB/km and 1.0dB of connector loss is assumed.)

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ARM CABLES

OPTICAL PROPERTIES			
CHARACTERISTICS		ITU-T.652D	ITU-T.657A1
Modefield Diameter (µm)	1310nm	$9.2 \pm 0.4$	$9.2 \pm 0.4$
	1550nm	$10.4 \pm 0.5$	$10.4 \pm 0.5$
Cabled Attenuation (dB/km)	1310nm	$\leq 0.34$	$\pm 0.34$
	1550nm	$\leq 0.20$	$\pm 0.20$
Polarization Mode Dispersion (ps/√km)	Link (PMDQ)	$\leq 0.04$	$\leq 0.04$
	Individual (PMDmax)	$\leq 0.1$	$\leq 0.1$
Chromatic Dispersion (ps/nm.km)	1285-1330nm	3	3
	1550nm	$\leq 18$	$\leq 18$
	1625nm	$\leq 22$	$\leq 22$
Macro-Bend Loss	1550nm	$\varnothing 32\text{mm}$ , 1turn, $\leq 0.03\text{dB}$	$\varnothing 10\text{mm}$ , 1turn, $\leq 0.5\text{dB}$
		$\varnothing 50\text{mm}$ , 100turns, $\leq 0.03\text{dB}$	$\varnothing 15\text{mm}$ , 10turns, $\leq 0.05\text{dB}$
		$\varnothing 25\text{mm}$ , 100turns, $\leq 0.01\text{dB}$	$\varnothing 10\text{mm}$ , 1turn, $\leq 1.5\text{dB}$
	1625nm	$\varnothing 10\text{mm}$ , 1turn, $\leq 1.5\text{dB}$	$\varnothing 15\text{mm}$ , 10turns, $\leq 0.3\text{dB}$
		$\varnothing 50\text{mm}$ , 100turns, $\leq 0.03\text{dB}$	$\varnothing 25\text{mm}$ , 100turns, $\leq 0.01\text{dB}$
		$\varnothing 25\text{mm}$ , 100turns, $\leq 0.01\text{dB}$	$\varnothing 25\text{mm}$ , 100turns, $\leq 0.01\text{dB}$
Cladding Diameter (µm)		$125 \pm 0.7$	$125 \pm 0.7$
Cladding Non Circulatory (%)		$\leq 0.7$	$\leq 1$
Core-Clad Concentricity (µm)		$\leq 0.5$	$\leq 0.6$
Cable Cut-Off Wavelength (nm)		$\leq 1260$	$\leq 1260$
Local Variations : Cabled (dB)		$\leq 0.1@1550\text{nm}$	$\leq 0.1@1550\text{nm}$