excel
without compromise.

X FIBRE

X **Internal External Grade**
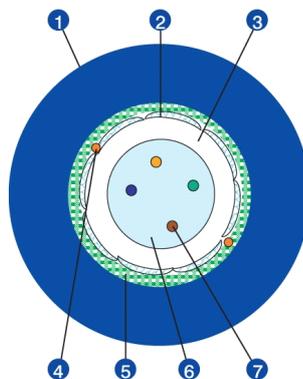
X **Sequentially Metre Marked**

X **Corrugated Steel Tape Armour**

Features

- Internal External Grade
- Corrugated Steel Tape Armour
- 50/125 Multimode Fibre
- 6000/500MHz.km Bandwidth
- Cut to length service

- Sequentially Metre Marked
- 25 Year System Warranty
- LSOH Blue Sheath
- Duct Grade, Rodent Resistant

Product Overview

Excel corrugated steel tape (CST) armoured loose tube optical fibre cables have been designed specifically for applications requiring a high degree of mechanical protection. These compact, lightweight cables are extremely rugged, provide rodent resistance and are quick and easy to install. The cables are constructed around a gel filled (non-dripping and silicon free) tube containing up to 24 colour coded 250μm primary coated 50/125μm fibres. This tube is covered with water swellable E-glass acting as strength members. This cable construction is completed with a longitudinally applied corrugated steel tape and a flame retardant, low smoke zero halogen, outer sheath.

1. LSOH Outer Sheath
2. E-glass
3. Loose Tube
4. Ripcord
5. Corrugated Steel Armour
6. Gel (non-dripping and silicone free)
7. Optical Fibres

Performance Overview

Excel loose tube fibre optic cables are designed and manufactured to ensure that optimum performance is possible from installed fibre links. Support of protocols such as 10 Gigabit Ethernet over maximum distances – 550 metres is assured, due to improved bandwidth available as standard from Excel fibre cables. OM4 has been additionally developed to support the parallel optics applications 40 & 100 Gigabit Ethernet using parallel optics to 150m.

Loose Tube CST Cable		
Nominal and Maximum Outside Diameter	9.0 / 9.30 mm	
Loose Tube Diameter	3.3 mm	
Energy of flame	1045 kJ/m	
Weight	103 kg/km	
Reel Size	Ø1000 x 588 mm	
Standard delivery length	2100 ± 100 m	
Temperature range	IEC 60794-1-2-F1	
Transport / Storage		-30 to +70°C
Installation		-5 to +50°C
Operation		-30 to +70°C
Pulling tension	IEC 60794-1-2-E1	≤ 800 N
Long term		≤ 1600 N
Short term		
Bending radii cable for fibres and tubes	>25 mm	
Installation/operation		
Watertightness	IEC 60794-1-2-F5	Yes
Bending radii cable	IEC 60794-1-2-E11	10 x Ø
Long term	IEC 60794-1-2-E6	20 x Ø
Short term		
Flame retardancy	IEC 60332-3C (EN 50266-2-4)	Pass
	IEC 60331-25 (EN 50200)	Pass
	IEC 61034 (EN 50268-2)	Pass
Halogen-free Corrosivity	IEC 60754-2 (EN 50267-2-2)	pH ≥ 3.5 - µS/cm ≤ 100
Construction	IEC 60794	
Direct Burial Installation Crush	≤ 30 KN/m	

Optical Performance

Modal-Field Diameter	50 ± 2.5 µm
	125 ± 1 µm
Numerical Aperture	0.20 ± 0.015 µm

	850 nm	1300 nm
Average Attenuation	2.5 dB/km	0.5 dB/km
Maximum Attenuation	3.0 dB/km	1.0 dB/km
Bandwidth	≥6000 MHz.km	≥500 MHz.km
Ethernet Performance		
Gigabit	900 m	550 m
10 Gigabit	550 m	n/a
Refractive Index (n)	1.482	1.477

Fibre Colours

Cores 1-12 plain colours

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

Typical Applications

■ 1000BASE-LX ■ 10GBASE-LX4 ■ 10GBASE-LR/LW ■ 10GBASE-ER/EW ■ 155 Mbps ATM ■ 622 Mbps ATM ■ FDDI

■ 531 Mbps Fibre Channel ■ 1062 Mbps Fibre Channel

Part Number Information

Part No.	Description
204-204	Internal/External Grade CST Armoured Fibre Cable 4 Core 50/125 OM4
204-206	Internal/External Grade CST Armoured Fibre Cable 6 Core 50/125 OM4
204-208	Internal/External Grade CST Armoured Fibre Cable 8 Core 50/125 OM4
204-212	Internal/External Grade CST Armoured Fibre Cable 12 Core 50/125 OM4
204-216	Internal/External Grade CST Armoured Fibre Cable 16 Core 50/125 OM4
204-224	Internal/External Grade CST Armoured Fibre Cable 24 Core 50/125 OM4

System Warranty

The Excel System Warranty provides a 25-year product and applications assurance of compliance with the industry performance standard appropriate to the class of cabling installed. The warranty may be applied for by an accredited Excel Partner who has designed, supplied and installed the said system.

25 YEAR WARRANTY
excel

S-Cabling