



X G.652.D Compliant

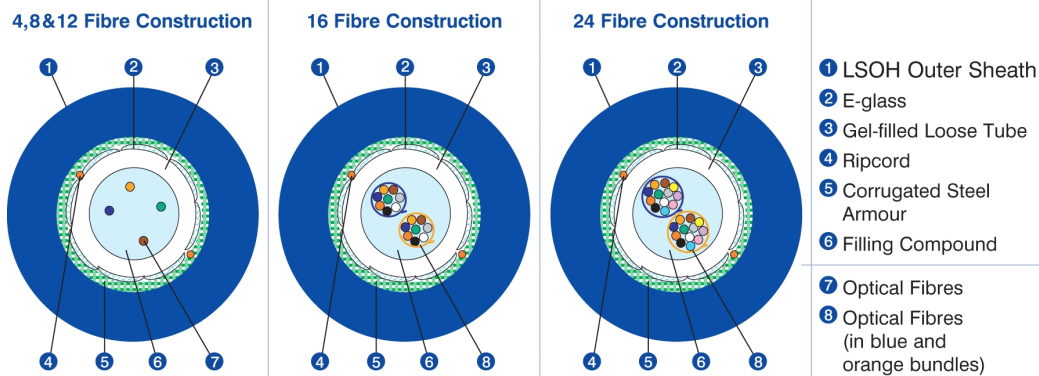
X Corrugated Steel Tape Armour

## Features

- G.652.D Compliant
- Corrugated Steel Tape Armour
- 9/125 Singlemode Fibre
- Duct Grade
- Sequentially Metre Marked
- Internal External Grade
- Performs to OS1 & OS2
- LSOH Blue Sheath
- Cut to length service
- 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. The singlemode fibre is G.652.D compliant low water peak grade offering both OS1 & OS2 performance. These compact, lightweight cables are extremely rugged, provide rodent resistance and are quick and easy to install. The cables are constructed around a silica gel filled tube(s) containing up to 12 colour coded 250µm primary coated 9/125 fibres. This tube is covered with E-glass strength members and a flame retardant, low smoke zero halogen, outer sheath. In 16 and 24 core cables, the twin bundle design provides both extra protection for the fibres but also enables faster and easier installation, whilst retaining a compact outside diameter.



## 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 Gigabit Ethernet over 10 km distances are assured, due to improved bandwidth available as standard from Excel fibre cables.

|                          | 1310 nm                                    | 1550 nm                                   |
|--------------------------|--|---|
| Maximum Attenuation      | 0.40 dB/km                                 | 0.25 dB/km                                |
| Dispersion               | ≤3.5 ps.nm <sup>-1</sup> .km <sup>-1</sup> | ≤18 ps.nm <sup>-1</sup> .km <sup>-1</sup> |
| PMD                      | ≤ 0.2 ps / km                              |   |
| Cable Cut-off Wavelength | ≤ 1260 nm                                  |   |
| Loose Tube CST Cable     |  |   |
| Outside Diameter         | 4-12 Cores 8.3 ± 0.2 mm                    | 16 & 24 Core 8.5 ± 0.2 mm                 |
| Outer Sheath             | LSOH 1.8 mm thick                          |   |
| Loose Tube Diameter      | 2.8 ± 0.1 mm                               |   |
| Loose Tube               | Polybutylene Teraphthalate (PBT)           |   |
| Loose Tube Colour        | Natural                                    |   |

|   |                                 |                                   |
|---|---------------------------------|-----------------------------------|
| Loose Tube Fill   | Thixotropic Jelly               |                                   |
| Peripheral Strength Members                               | E-Glass                         |                                   |
| Weight  | 4-12 Cores 90 kg / km (nominal) | 16 & 24 Core 95 kg / km (nominal) |
| Standard maximum length                                   | 2000 m ± 10%                    |                                   |
| Temperature range   | IEC 60794-1-2-F1                |                                   |
| Transport / Storage                                       | -40 to +60°C                    |                                   |
| Operation   | -20 to +70°C                    |                                   |
| Pulling tension   | IEC 60794-1-2-E1                | ≤ 1000 N                          |
| Long term   |                                 | ≤ 2000 N                          |
| Short term  |                                 |                                   |
| Bending radii for fibres and tubes Installation/operation | IEC 60794-1-2-E1                | ≤ 1000 N<br>≤2000 N               |
| Watertightness  | IEC 60794-1-2-F5                | Yes                               |
| Crush load  | IEC 60794-1-2-E3                | ≤ 30000 N/m                       |
| 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                              |
| Halogen-free Corrosivity                                  | IEC 60754-2 (EN 50267-2-2)      | pH ≥ 3.5 - µS/cm ≤ 100            |
| Construction  | ITU G.652.D                     |                                   |
| Armour  | Corrugated Steel Tape (CST)     |                                   |
| <b>Optical Performance</b>                                |                                 |                                   |
| Modal-Field Diameter                                      |                                 | 9.2 ± 0.4 µm<br>125 ± 1 µm        |

#### Cores 1-12

|            |            |          |          |
|------------|------------|----------|----------|
| 1. Blue    | 2. Orange  | 3. Green | 4. Brown |
| 5. Natural | 6. White   | 7. Red   | 8. Black |
| 9. Yellow  | 10. Purple | 11. Pink | 12. Aqua |

*N.B. In 16 core cables, colours 1-8 are repeated in each loose tube. In 24 core cables, colours 1-12 are repeated in each loose tube.*

### 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   |
|----------|---|
| 205-305  | Internal/External Grade CST Fibre Cable 4 Core 9/125 OS2  |
| 205-306  | Internal/External Grade CST Fibre Cable 8 Core 9/125 OS2  |
| 205-307  | Internal/External Grade CST Fibre Cable 12 Core 9/125 OS2 |
| 205-308  | Internal/External Grade CST Fibre Cable 16 Core 9/125 OS2 |
| 205-309  | Internal/External Grade CST Fibre Cable 24 Core 9/125 OS2 |

### 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.



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