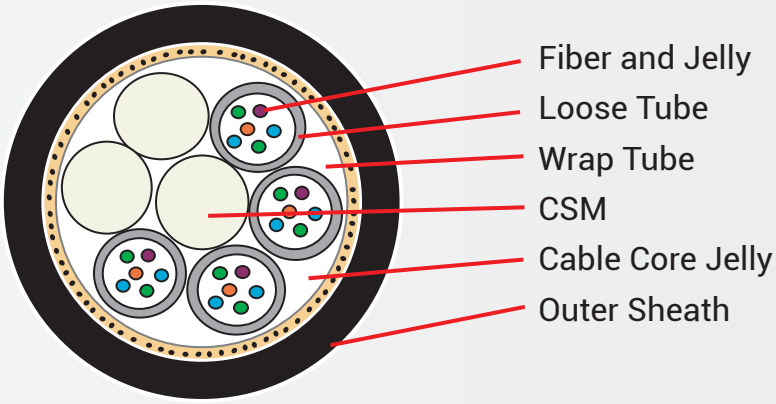
# Optical Fiber Cable

*Armoured Stranded Tube*

Optical Fiber Cable are widely used nowadays to transmit data as light pulses through thin strands of glass or plastic. The Optical Fiber offers high speed data transmission, high bandwidth and immunity to electromagnetic interference, making them ideal for telecommunication and networking medium.

The Fiber Optic Cable comes in various design and construction, depending on area, location and site condition of where the Fiber Optic Cable will be installed. Most common cable design deployed in Malaysia are Duct/Underground Fiber Optic Cable, Aerial IB Fiber Optic Cable, Aerial ADSS Fiber Optic Cable, Anti-Rodent Cable (Steel Tape Armoring), OPGW Cable, etc.




This datasheet provide details design and specification for Litech's Armored Stranded Tube Cable.

| Structure and Material Specification | | |
|---|---|---|
| Center Strength Member | Material Diameter | Steel Wire 2.0mm |
| Loose Tube | Material Out Dia | PBT Refer Table Below |
| Wrap Tape | Material Thickness | Water Proof Tape 0.2 mm |
| Armoured | Material Thickness | AL/PE Laminated, Tape Armoured & HDPE Outer Sheath |
| Outer Sheath | Material Thickness | PE/LSZH 2.0 mm |



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| Mechanical / Electrical / Environment Characteristic | | |
|---|---|---|
| Tensile | Short Term<br>Long Term | 1500N<br>600N |
| Crush | Short Term<br>Long Term | 1000N/10cm<br>300N/10cm |
| Bending Radius | Installing<br>Installed | 30* Cable Diameter<br>≥10* Cable Diameter |
| Other Mechanical Characteristics | Correspond To IEC Publication | |
| Insulating Resistance of Sheath | ≥2000M after 24 hours water immersion | |
| Water Penetration | Correspond To IEC794-1-F5 | |
| Moisture Resistant Jelly<br>Temperature | + 70, No jelly will be flooded<br><br>-40~+70 Additional dispersion 0.05dB/km | |

| Transmission Parameters Of Fibres | | | | | |
|---|---|---|---|---|---|
| Parameter | Unit | Singlemode Fibre | | Multimode Fibre | |
| | | G.652D | G.655 | G.651 | G.651 |
| | | | | 50/125 | 62.5/125 |
| **Attenuation** | | | | | |
| 850 nm | dB/km | | | 3.0 | 3.5 |
| 1310 nm | | <=0.36 | | 1.0 | 1.5 |
| 1383 nm | | <=0.36 | <=2.1 | | |
| 1550 nm | | <=0.22 | <=0.22 | | |
| 1625 nm | | <=0.25 | <=0.25 | | |
| **Chromatic dispersion** | | | | | |
| 1288~1339 nm | ps/nm·km | <=3.5 | | | |
| 1550 nm | | <=18 | | | |
| 1530~1565 nm | | | 1.0 to 6.0 | | |
| 1565~1625 nm | | | 4.5 to 11.2 | | |
| **Bandwidth** | | | | | |
| 850 nm | MHz·km | | | >=200 | >=160 |
| 1310 nm | | | | >=500 | >=500 |
| **PMD** | | | | | |
| Individual Fibre | $ps/km1^{/2}$ | <=0.2 | <=0.1 | | |
| Link Value | | <=0.1 | <=0.04 | | |
| Cut off wavelength (in cable) | nM | <=1260 | <=1480 | | |

| Geometrical Parameters Of Fibres | | | | | |
|---|---|---|---|---|---|
| Parameter | Unit | Singlemode Fibre | | Multimode Fibre | |
| | | G.652D | G.655 | G.651 | G.651 |
| | | | | 50/125 | 62.5/125 |
| **Mode field diameter at wavelength** | | | | | |
| 1310 Nm | μm | 9.2±0.4 | | | |
| 1550 Nm | μm | 10.4±0.8 | 9.2~10.0 | | |
| Mode Field Noncircularity | μm | <=0.5 | <=0.5 | | |
| Core Diameter | μm | | | 50±2 | 62.5±2 |
| Cladding Diameter | μm | 125±1.0 | | 125±2.0 | |
| Cladding Ellipticity | % | <=1 | | <=2 | |
| Coating / Cladding Concentricity | μm | <=12 | | | |
| Coating / Cladding Concentricity | μm | <=0.5 | | <=3.0 | |
| Primary Coating Diameter | % | <=1.0 | | <=2.0 | |
| Numerical Aperture | μm | 245±5 | | | |
| Curl | m | >=4 | | | |



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# Application

| Item | Value |
|---|---|
| Operation temperature | -40 ºC～+70 ºC |
| Installation temperature | -40 ºC～+70 ºC |
| Storage temperature | -40 ºC～+70 ºC |
| Static bending radius | 12.5 times the cable diameter |
| Dynamic bending radius | 25 times the cable diameter |

# Ordering Information

| Part Number | Fiber Count | Central Strength Member | Loose Tube | | Fillers | | Outer Sheath Thickness | Cable | Weight |
|---|---|---|---|---|---|---|---|---|---|
| | | Steel Wire | Dia. /mm | No. | Dia. /mm | No. | | kg/km | Outer Dia. |
| LTOC-CB-XX08-04 | 4 | 2.0 | 1.9 | 1.0 | 1.9 | 5 | 2.0 | 11.2 | 117 |
| LTOC-CB-XX08-06 | 6 | 2.0 | 1.9 | 1.0 | 1.9 | 5 | 2.0 | 11.2 | 117 |
| LTOC-CB-XX08-08 | 8 | 2.0 | 1.9 | 2.0 | 1.9 | 4 | 2.0 | 11.2 | 118 |
| LTOC-CB-XX08-12 | 12 | 2.0 | 1.9 | 2.0 | 1.9 | 4 | 2.0 | 11.2 | 118 |
| LTOC-CB-XX08-16 | 16 | 2.0 | 1.9 | 3.0 | 1.9 | 3 | 2.0 | 11.2 | 119 |
| LTOC-CB-XX08-18 | 18 | 2.0 | 1.9 | 3.0 | 1.9 | 3 | 2.0 | 11.2 | 119 |
| LTOC-CB-XX08-24 | 24 | 2.0 | 1.9 | 4.0 | 1.9 | 2 | 2.0 | 11.2 | 121 |
| LTOC-CB-XX08-36 | 36 | 2.0 | 1.9 | 6.0 | - | - | 2.0 | 11.2 | 123 |
| LTOC-CB-XX08-48 | 48 | 2.3 | 2.2 | 6.0 | - | - | 2.0 | 12.2 | 149 |
| LTOC-CB-XX08-96 | 96 | 2.5 | 2.4 | 8.0 | - | - | 2.0 | 14.2 | 195 |



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LITECH is constantly pushing the limits of fiber optic telecommunications technology by introducing innovative concepts and making ground-breaking advancements that inspire significant human progress.

Our R&D teams push the extra miles to come out with applicable and innovative solutions to suits our customer's network . It is our passion and dedication to identify the next opportunity and realize a better tomorrow.

