VEYRA
FIBRE

Fire-Rated
Fibre Optic Cables

Unitube

- Fire-resistant
- Low smoke, flame retardant

Multi-Tube

- Fire-resistant
- Fire-resistant
  (++ enhanced water resistance)
- Low smoke, flame retardant

www.veyrafibre.com.au

info@veyrafibre.com.au

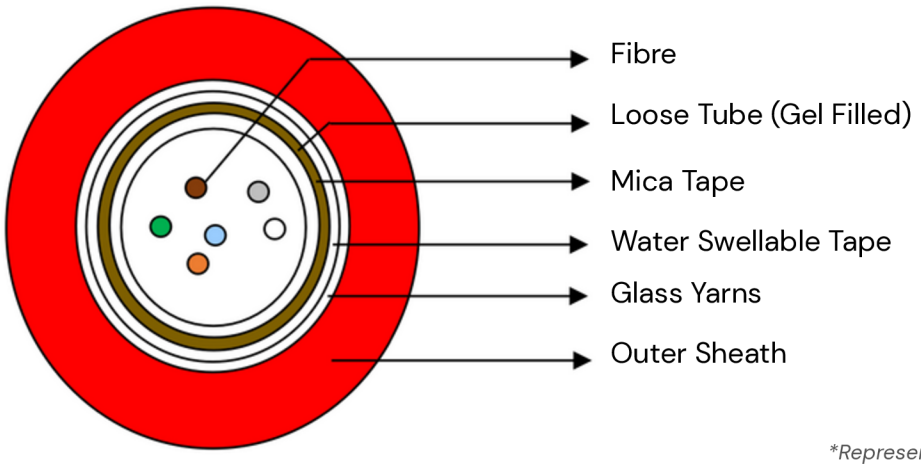
VEYRA FIBRE

PRODUCT SPECIFICATION

All-Dielectric Fire-Resistant LT Unitube Fibre Optic Cable

00xx-xx-01UT3-0F30-xx

A high-performance fibre optic cable containing optical fibres within a jelly-filled loose tube (6, 12 or 24 fibres per tube). The tube is wrapped in mica tape and features a “dry” water-blocked core, with glass yarns for enhanced protection, and a Low Smoke Zero Halogen (LSZH) outer sheath.



Representative diagram, not to scale

Key Features

- Jelly-filled loose tube with dry core
- Rated for 120 minutes fire resistance in accordance with IEC 60331-25
- Glass Yarns offering rodent resistance and mechanical robustness
- LSZH UV Protected outer sheath for fire safety and outdoor installation

Applications

- Ideal for installation in indoor or outdoor environments, ducts/conduits, cable trays, and tunnels
- Provides fire performance in compliance with IEC 60332 and IEC 60331

Cable Construction

Fibre Count	06/12/24F
Number of fibres per tube	06/12/24
Number of loose tubes	1
Fibre and Tube Colour Sequence	As per EIA/ TIA 598
Loose Tube OD	2.8 ± 0.1 mm
Fire Resistant Layer	Mica Tape
Moisture Barrier	Water Blocking Tape
Peripheral Strength Member	Glass Yarn
Outer Sheath and Colour	LSZH - UV Resistant (Red - RAL 3000)
Cable Diameter	7.2 ± 0.3 mm
Cable Weight	70 ± 10 kg/km

Cable Characteristics

Max. Pulling Tensile Strength	3 kN	IEC-60794-1-21-E1
Crush Resistance	2 kN/100 x 100 mm	IEC-60794-1-21-E3
Impact Strength	15 J	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	Under Load : 15 x D No Load : 10 x D	IEC-60794-1-21-E11
Environmental Performance	Installation -20 °C to + 70 °C Operation -40 °C to + 70 °C Storage. -20 °C to + 70 °C	IEC-60794-1-22-F1

Fire Standards Compliance

Fire Resistance	IEC 60331-25 (750°C for 120 min)
Fire Propogation	IEC 60332-3-24
Fire Retardant	IEC 60332-1-2

Fibre Characteristics

Fibre Type	ITU-T G.657A1
Attenuation	1310 nm ≤ 0.36 dB/km 1550 nm ≤ 0.23 dB/km
Chromatic Dispersion	1285-1330 nm ≤ 3.5 ps/nm.km 1550 nm ≤ 18 ps/nm.km 1625 nm ≤ 22 ps/nm.km
PMD (Max. Individual)	≤ 0.15 ps/√km
PMD (Link design value)	≤ 0.06 ps/√km
Cable cut off wavelength λcc	≤ 1260 nm
MFD	1310 nm 9.1 ± 0.3 µm 1550 nm 10.3 ± 0.5 µm
Bending Induced Attenuation	1 Turn - φ 20 1550 nm ≤ 0.75 dB 1625 nm ≤ 1.5 dB 10 Turn - φ 30 1550 nm ≤ 0.25 dB 1625 nm ≤ 1.0 dB
Core-Cladding Concentricity Error	≤ 0.5 µm
Cladding Diameter	125 ± 0.7 µm

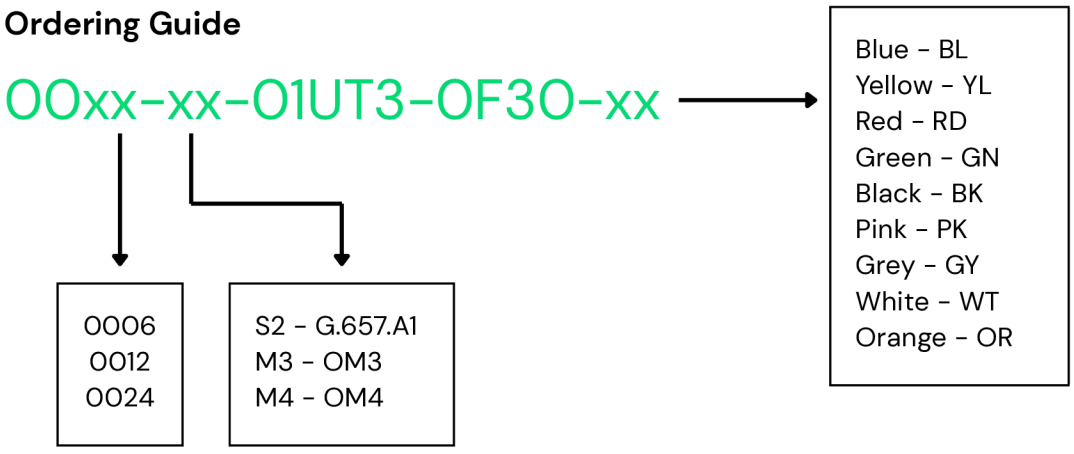
Cladding Non Circularity	≤ 0.8 %
Coating Diameter	242 ± 5 µm

Fibre Type	OM4
Attenuation	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.0 dB/km
Bandwidth	850 nm ≥ 3500 MHz.km 1300 nm ≥ 500 MHz.km
Core Diameter	50.0 ± 2.5 µm
Core-Cladding Concentricity Error	≤ 1.0 µm
Cladding Diameter	125 ± 1.0 µm
Cladding Non Circularity	≤ 1.0 %
Coating Diameter	242 ± 7 µm

Applicable Standards

IEC 60793, IEC 60794, ITU-T, RoHS, REACH, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide



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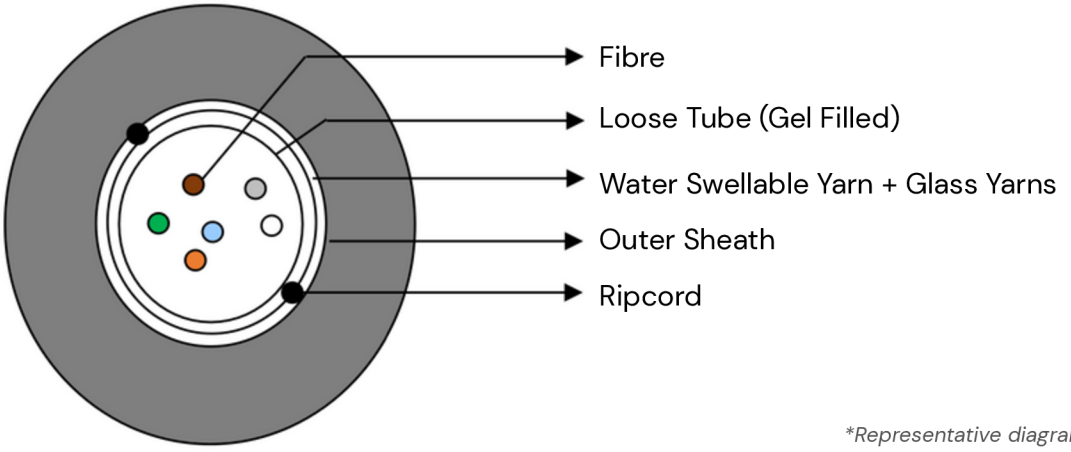
VEYRA FIBRE

PRODUCT SPECIFICATION

LT Unitube Flame-Retardant Fibre Optic Cable

00xx-xx-01UT3-0F10-xx

This unitube single jacket indoor fibre optic cable is designed for use in campus distribution and intra-building links. It features optical fibres housed in a central gel-filled loose tube, providing moisture resistance and stable fibre protection. Dielectric glass yarns are applied as peripheral strength members, delivering tensile strength and basic rodent deterrence. The outer jacket is made of LSZH (Low Smoke Zero Halogen) material, offering flame retardance and low smoke emission - ideal for enclosed spaces and indoor deployments.



Representative diagram, not to scale

Key Features

- Gel-Filled Loose Tube for moisture resistance and fibre protection
- Dielectric Glass Yarn Strength Members provide rodent resistance
- LSZH Outer Sheath: Flame-retardant and halogen-free for safe indoor use, UV stabilised for outdoor exposure.

Applications

- Indoor and riser backbone cabling
- Intra-building and campus fibre networks
- Data distribution in office, commercial, or institutional buildings
- FTTH/FTTB drop cable in shared indoor pathways

Cable Construction

Fibre Count	Number of Fibres per Tube	Number of Loose Tubes - PBT	Cable Diameter	Cable Weight
6	6	1	6.6 mm ± 5 %	50 ± 10 kg/km
12	12	1	6.6 mm ± 5 %	50 ± 10 kg/km
24	24	1	7.6 mm ± 5 %	65 ± 10 kg/km
Moisture Barrier		Water Blocking Yarns		
Peripheral Strength Member		Glass Yarn		
Outer Sheath and Colour		LSZH - UV Resistant (Black*) *other jacket colours available on request		
Number Of Ripcords		2 - Polyester		

Colour Coding - Fibre and Loose Tubes

Fibre Count	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Fibre Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Fibre Count	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Fibre Colour EIA/TIA – 598	Bl*	Or*	Gr*	Br*	Sl*	Wh*	Rd*	Bk*	Yl*	Vi	Pk*	Aq*

*Ring marking on fibres from 13-24 at every 50 mm distance. Natural ring marked fibre instead black fibre

Cable Characteristics

Max. Pulling Tensile Strength	Short Term: 1000 N	IEC-60794-1-21-E1
Crush Resistance	1000 N/100 mm	IEC-60794-1-21-E3
Impact Strength	5 N.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	20 x D	IEC-60794-1-21-E11
Environmental Performance	Installation -10 °C to + 60 °C Operation -30 °C to + 70 °C Storage. -40 °C to + 70 °C	IEC-60794-1-22-F1
Flame Retardant	IEC 60332-1-2	

Fibre Characteristics

Fibre Type	ITU-T G.652.D
Attenuation (Cabled)	1310 nm ≤ 0.36 dB/km 1550 nm ≤ 0.23 dB/km
Chromatic Dispersion	1285-1330 nm ≤ 3.5 ps/nm.km 1550 nm ≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.2 ps/√km
PMD (Link design value)	≤ 0.06 ps/√km
Cable cut off wavelength λcc	≤ 1260 nm
MFD	1310 nm 9.2 ± 0.4 µm 1550 nm 10.4 ± 0.5 µm

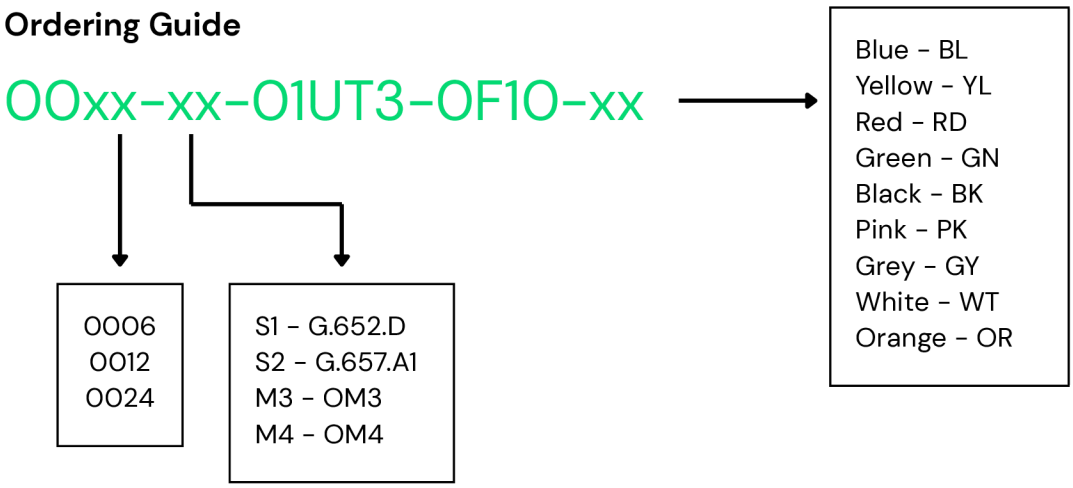
Core-Cladding Concentricity Error	≤ 0.5 µm
Cladding Diameter	125 ± 0.7 µm
Cladding Non Circularity	≤ 0.8 %
Coating Diameter	242 ± 5 µm

Fibre Type	OM3		OM4	
Attenuation	850 nm 1300 nm	≤ 3.0 dB/km ≤ 1.5 dB/km	850 nm 1300 nm	≤ 3.0 dB/km ≤ 1.5 dB/km
Bandwidth	850 nm 1300 nm	≥ 1500 MHz.km ≥ 500 MHz.km	850 nm 1300 nm	≥ 3500 MHz.km ≥ 500 MHz.km
Core Diameter	50.0 ± 2.5 µm			
Core-Cladding Concentricity Error	≤ 1.0 µm			
Cladding Diameter	125 ± 1.0 µm			
Cladding Non Circularity	≤ 1.0 %			
Coating Diameter	242 ± 7 µm			

Applicable Standards

IEC 60793, IEC 60794, ITU-T, RoHS, REACH, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide



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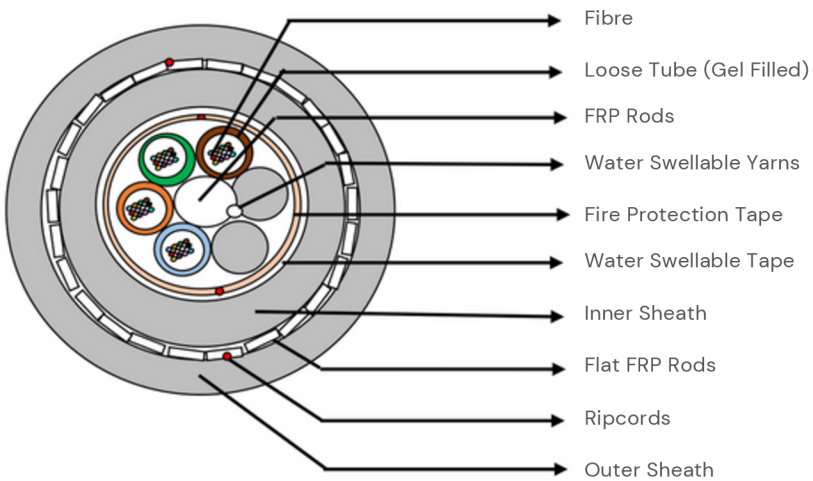
PRODUCT SPECIFICATION

All-Dielectric Fire-Resistant MLT Fibre Optic Cable

0xxx-xx-xxMTD7-YFF30-xx

This dielectric armoured fire-rated fibre optic cable is engineered for high-performance applications in environments such as tunnel, subways, rail and road corridors, requiring low smoke and zero halogen emissions. Designed with enhanced fire safety in mind, the cable features water-blocked loose tubes laid around a central strength member, ensuring optical integrity even in harsh conditions. The core is protected by a dual LSZH (Low Smoke Zero Halogen) sheath system and robust flat FRP armouring, delivering mechanical durability, rodent protection, and fire compliance.



*Representative diagram, not to scale

Key Features & Benefits

- Rated for 120 minutes fire resistance in accordance with IEC 60331-25
- Dual LSZH jackets ensure minimal smoke and toxic gas emission
- Flat FRP armouring provides high mechanical strength and resistance to rodent damage.
- Water Blocking: Gel-filled loose tubes and water-swellable elements prevent moisture ingress, enhancing long-term reliability.

Applications

- Tunnels and Subways
- Rail and Road Transport Corridors
- Industrial Facilities with Fire Safety Requirements
- Power Stations and Substations

Cable Construction

Fibre Count	Number of Fibres per Tube	Number of Loose Tubes - PBT	Number of Fillers - HDPE - Black	Central Strength Member	Cable Diameter	Cable Weight
6	6	1	5	FRP Rod	14.8 mm ± 5 %	265 kg/km ± 10%
12	12	1	5	FRP Rod	14.8 mm ± 5 %	265 kg/km ± 10%
24	12	2	4	FRP Rod	14.8 mm ± 5 %	265 kg/km ± 10%
48	12	4	2	FRP Rod	14.8 mm ± 5 %	265 kg/km ± 10%
72	12	6	-	FRP Rod	14.8 mm ± 5 %	265 kg/km ± 10%
96	12	8	-	FRP Rod PE Upcoated	16.0 mm ± 5 %	320 kg/km ± 10%
108	12	9	-	FRP Rod PE Upcoated	17.8 mm ± 5 %	380 kg/km ± 10%
144	12	12	-	FRP Rod PE Upcoated	18.5 mm ± 5 %	415 kg/km ± 10%
216	12	Layer I : 6 Layer II : 12	-	FRP Rod PE Upcoated	18.6 mm ± 5 %	420 kg/km ± 10%

Moisture Barrier	Water Swellable Yarn
Core Wrapping	Water Swellable Tape
Inner Sheath	LSZH – Black
Armouring	Flat FRP Rods
Outer Sheath	LSZH – Black*– Anti Termite - UV Stabilised *other outer jacket colours available on request
Number of Ripcords	4 - Polyester

Colour Coding - Fibre and Loose Tubes

Fibre Count	1	2	3	4	5	6	7	8	9	10	11	12
Fibre Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Tube Count	1	2	3	4	5	6	7	8	9	10	11	12
Tube Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Cable Characteristics

Maximum Tensile Strength	3000 N	IEC-60794-1-21-E1
Crush Resistance	3000 N / 100 x 100 mm	IEC-60794-1-21-E3
Impact Strength	30 N.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	20 x D	IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours	IEC-60794-1-22-F5
Drip Test	30 cm , 70 ^{0}C, 24 hr	IEC-60794-1-21-E14
Environmental Performance	Installation -10 °C to + 70 °C Operation -20 °C to + 75 °C Storage. -20 °C to + 75 °C	IEC-60794-1-22-F1

Fire Standards Compliance

Fire Resistant	IEC 60331-25 , 120 mins
Flammability	ASTM D2863 /BS EN ISO 4589 Part 2.
Flammability	ASTM D2863 /BS EN ISO 4589 Part 3
Flame Propagation	IEC60332: Part 1 / BS EN 50265
Flame Propagation	IEC60332: Part 3 Category A / BS EN 50266 Part 2-4
Corrosive and Acid Gas Emission	IEC60754: Part 1 / BS6425
Corrosive and Acid Gas Emission	IEC60754: Part 2
Smoke Emission	IEC61034-2/ASTM D 2843

Fibre Characteristics

Fibre Type	ITU-T G.652D
Attenuation (Cabled)	1310 nm ≤ 0.36 dB/km 1550 nm ≤ 0.24 dB/km
Chromatic Dispersion	1285-1330 nm. ≤ 3.5 ps/nm.km 1550 nm. ≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.1 ps/√km
PMD (Link design value)	≤ 0.06 ps/√km

Cable cut off wavelength λcc	≤ 1260 nm
MFD	1310 nm 9.2 ± 0.4 µm 1550 nm 10.4 ± 0.5 µm
Core-Cladding Concentricity Error	≤ 0.5 µm
Cladding Diameter	125 ± 0.7 µm
Cladding Non Circularity	≤ 0.8 %
Coating Diameter	242 ± 5 µm

Fibre Type	OM3	OM4
Attenuation	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km
Bandwidth	850 nm ≥ 1500 MHz.km 1300 nm ≥ 500 MHz.km	850 nm ≥ 3500 MHz.km 1300 nm ≥ 500 MHz.km
Core Diameter	50.0 ± 2.5 µm	
Core-Cladding Concentricity Error	≤ 1.0 µm	
Cladding Diameter	125 ± 1.0 µm	
Cladding Non Circularity	≤ 1.0 %	
Coating Diameter	242 ± 7 µm	

Applicable Standards

IEC 60793, IEC 60794, ITU-T, RoHS, REACH, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide

0xxx-xx-xxMTD7-YFF30-xx

Fibre Count

0006
0012
0024
0048
0072
0096
0108
0144
0216

Fibre Type

S1 - G.652.D
S2 - G.657.A1
M3 - OM3
M4 - OM4

No. of Loose Tubes - PBT

*Refer Cable Construction table

Outer Jacket Colour

Blue - BL
Yellow - YL
Red - RD
Green - GN
Black - BK
Pink - PK
Grey - GY
White - WT
Orange - OR

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  (++ enhanced water resistance)
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VEYRA FIBRE

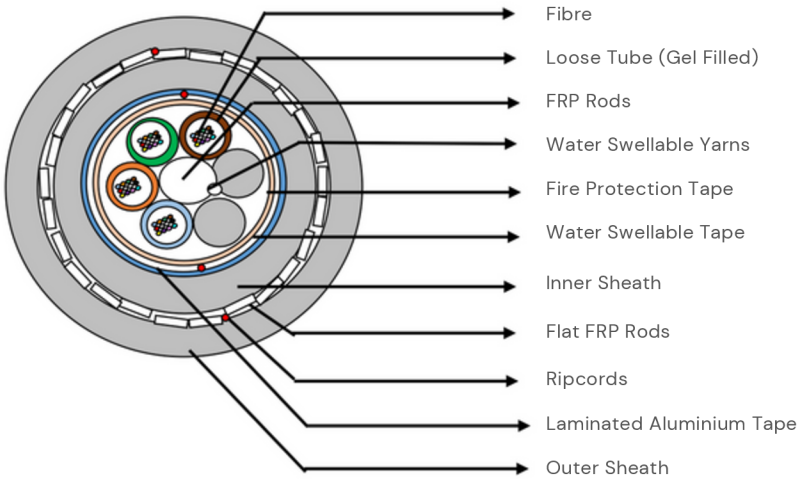
PRODUCT SPECIFICATION

Dielectric Armoured Fire-Resistant MLT Fibre Optic Cable

(with Enhanced Water Protection)

0xxx-xx-xxMTD7-YFF30-xx-PAL

This dielectric armoured fire-resistant fibre optic cable is built for demanding environments such as tunnels, subways, and transport corridors, where low smoke and zero halogen emissions are critical. Water-blocked loose tubes around a central strength member maintain optical performance, while dual LSZH sheaths and flat FRP armour provide mechanical strength, rodent protection, and fire compliance. A laminated aluminum tape layer over the cable core - shielded beneath LSZH sheaths, FRP armouring, and other construction layers - provides added protection against moisture ingress, especially during prolonged submersion.



Representative diagram, not to scale

Key Features & Benefits

- Rated for 120 minutes fire resistance in accordance with IEC 60331-25
- Dual LSZH jackets ensure minimal smoke and toxic gas emission
- Flat FRP armouring provides high mechanical strength and rodent resistance
- Gel-filled tubes, water-swellable elements, and a laminated Al tape layer provide robust moisture ingress protection, even under prolonged exposure.

Applications

- Tunnels and Subways
- Rail and Road Transport Corridors
- Industrial Facilities with Fire Safety Requirements
- Power Stations and Substations

Cable Construction

Fibre Count	Number of Fibres per Tube	Number of Loose Tubes - PBT	Number of Fillers - HDPE - Black	Central Strength Member	Cable Diameter	Cable Weight
6	6	1	5	FRP Rod	15.8 mm ± 5 %	300 kg/km ± 10%
12	12	1	5	FRP Rod	15.8 mm ± 5 %	300 kg/km ± 10%
24	12	2	4	FRP Rod	15.8 mm ± 5 %	300 kg/km ± 10%
48	12	4	2	FRP Rod	15.8 mm ± 5 %	300 kg/km ± 10%
72	12	6	-	FRP Rod	15.8 mm ± 5 %	300 kg/km ± 10%
96	12	8	-	FRP Rod PE Upcoated	17.2 mm ± 5 %	350 kg/km ± 10%
108	12	9	-	FRP Rod PE Upcoated	18.7 mm ± 5 %	420 kg/km ± 10%
144	12	12	-	FRP Rod PE Upcoated	19.5 mm ± 5 %	450 kg/km ± 10%
216	12	Layer I : 6 Layer II : 12	-	FRP Rod PE Upcoated	19.5 mm ± 5 %	465 kg/km ± 10%

Moisture Barrier	Water Swellable Yarn
Core Wrapping	Water Swellable Tape
Moisture Barrier	Laminated Aluminium Tape
Inner Sheath	LSZH – Black
Armouring	Flat FRP Rods
Outer Sheath	LSZH – Black*– Anti Termite - UV Stabilised *other outer jacket colours available on request
Number of Ripcords	4 - Polyester

Colour Coding - Fibre and Loose Tubes

Fibre Count	1	2	3	4	5	6	7	8	9	10	11	12
Fibre Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Tube Count	1	2	3	4	5	6	7	8	9	10	11	12
Tube Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Cable Characteristics

Maximum Tensile Strength	3000 N	IEC-60794-1-21-E1
Crush Resistance	3000 N / 100 x 100 mm	IEC-60794-1-21-E3
Impact Strength	30 N.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	20 x D	IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours	IEC-60794-1-22-F5
Drip Test	30 cm , 70 ^{0}C, 24 hr	IEC-60794-1-21-E14
Environmental Performance	Installation -10 °C to + 70 °C Operation -20 °C to + 75 °C Storage. -20 °C to + 75 °C	IEC-60794-1-22-F1

Fire Standards Compliance

Fire Resistant	IEC 60331-25 , 120 mins
Flammability	ASTM D2863 /BS EN ISO 4589 Part 2.
Flammability	ASTM D2863 /BS EN ISO 4589 Part 3
Flame Propagation	IEC60332: Part 1 / BS EN 50265
Flame Propagation	IEC60332: Part 3 Category A / BS EN 50266 Part 2-4
Corrosive and Acid Gas Emission	IEC60754: Part 1 / BS6425
Corrosive and Acid Gas Emission	IEC60754: Part 2
Smoke Emission	IEC61034-2/ASTM D 2843

Fibre Characteristics

Fibre Type	ITU-T G.652D
Attenuation (Cabled)	1310 nm ≤ 0.36 dB/km 1550 nm ≤ 0.24 dB/km
Chromatic Dispersion	1285-1330 nm. ≤ 3.5 ps/nm.km 1550 nm. ≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.1 ps/√km
PMD (Link design value)	≤ 0.06 ps/√km

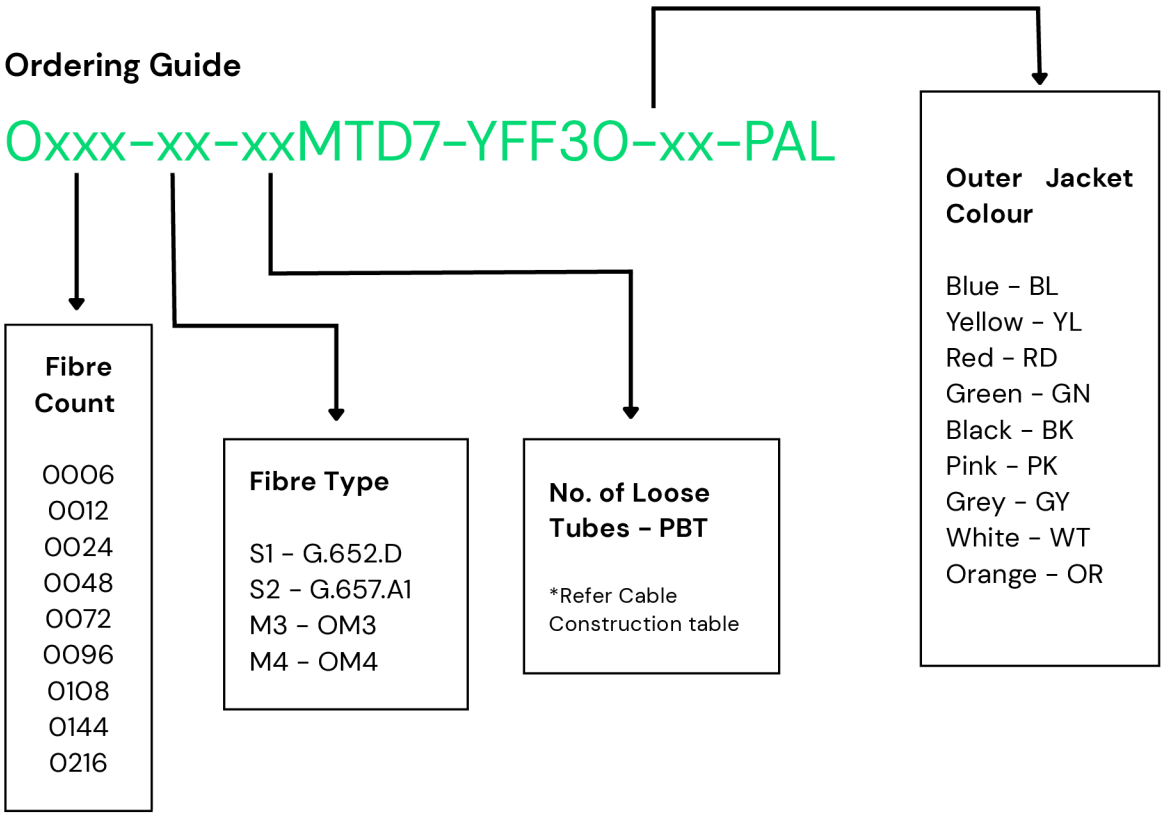
Cable cut off wavelength λcc	≤ 1260 nm
MFD	1310 nm 9.2 ± 0.4 µm 1550 nm 10.4 ± 0.5 µm
Core-Cladding Concentricity Error	≤ 0.5 µm
Cladding Diameter	125 ± 0.7 µm
Cladding Non Circularity	≤ 0.8 %
Coating Diameter	242 ± 5 µm

Fibre Type	OM3	OM4
Attenuation	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km
Bandwidth	850 nm ≥ 1500 MHz.km 1300 nm ≥ 500 MHz.km	850 nm ≥ 3500 MHz.km 1300 nm ≥ 500 MHz.km
Core Diameter	50.0 ± 2.5 µm	
Core-Cladding Concentricity Error	≤ 1.0 µm	
Cladding Diameter	125 ± 1.0 µm	
Cladding Non Circularity	≤ 1.0 %	
Coating Diameter	242 ± 7 µm	

Applicable Standards

IEC 60793, IEC 60794, ITU-T, RoHS, REACH, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide



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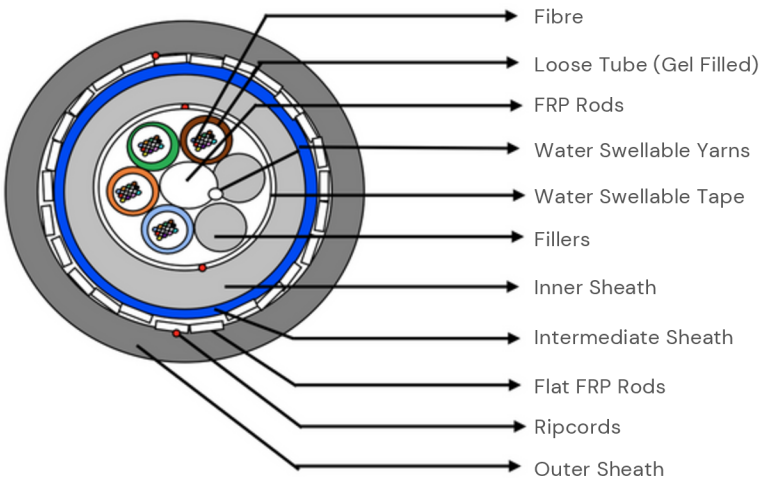
PRODUCT SPECIFICATION

All-Dielectric Flame-Retardant MLT Fibre Optic Cable

0xxx-xx-xxMTD3-YFF10-xx

Engineered for tunnel, metro, and transport corridor deployments, this flame-retardant dielectric armoured fibre optic cable delivers fire safety, water resistance, and mechanical durability. Its multitube gel-filled loose tube design ensures reliable performance in harsh, enclosed environments. Flat FRP armouring and a layered sheath system - comprising polyethylene and nylon inner sheaths, and a low smoke zero halogen (LSZH) outer jacket - provide protection against rodents, termites, crushing forces, and moisture ingress, while remaining flexible, easy to install, and compliant with fire safety standards.



Representative diagram, not to scale

Key Features & Benefits

- Outer LSZH jacket ensures minimal smoke and toxic gas emission
- Flat FRP armouring provides high mechanical strength and resistance to rodent damage.
- Gel-filled loose tubes and water-swellable elements prevent moisture ingress, enhancing long-term reliability.

Applications

- Tunnels and Subways
- Rail and Road Transport Corridors
- Backbone and Access network in power sensitive zones
- Industrial Facilities with Fire Safety Requirements
- Trackside, Power Stations and Substations

Cable Construction

Fibre Count	Number of Fibres per Tube	Number of Loose Tubes - PBT	Number of Fillers - HDPE - Black	Central Strength Member	Cable Diameter	Cable Weight
6	6	1	5	FRP Rod	14.5 mm ± 5 %	215 kg/km ± 10%
12	12	1	5	FRP Rod	14.5 mm ± 5 %	215 kg/km ± 10%
24	12	2	4	FRP Rod	14.5 mm ± 5 %	215 kg/km ± 10%
48	12	4	2	FRP Rod	14.5 mm ± 5 %	215 kg/km ± 10%
72	12	6	-	FRP Rod	14.5 mm ± 5 %	215 kg/km ± 10%
96	12	8	-	FRP Rod PE Upcoated	16.0 mm ± 5 %	255 kg/km ± 10%
144	12	12	-	FRP Rod PE Upcoated	18.5 mm ± 5 %	350 kg/km ± 10%

Moisture Barrier	Water Swellable Yarn
Core Wrapping	Water Swellable Tape
Inner Sheath	HDPE – Black
Intermediate Sheath	Nylon – Blue
Armouring	Flat FRP Rods
Outer Sheath	LSZH – Black*– UV Stabilised *other outer jacket colours available on request
Number of Ripcords	4 - Polyester

Colour Coding - Fibre and Loose Tubes

Fibre Count	1	2	3	4	5	6	7	8	9	10	11	12
Fibre Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Tube Count	1	2	3	4	5	6	7	8	9	10	11	12
Tube Colour EIA/TIA – 598	Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq

Cable Characteristics

Maximum Tensile Strength	4000 N	IEC-60794-1-21-E1
Crush Resistance	4000 N / 100 x 100 mm	IEC-60794-1-21-E3
Impact Strength	20 N.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	20 x D	IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours	IEC-60794-1-22-F5
Drip Test	30 cm , 70 ^{0}C, 24 hr	IEC-60794-1-21-E14
Environmental Performance	Installation -10 °C to + 70 °C Operation -30 °C to + 70 °C Storage. -40 °C to + 70 °C	IEC-60794-1-22-F1

Fire Standards Compliance

Flame Propagation	IEC60332: Part 1
Corrosive and Acid Gas Emission	IEC60754: Part 1
Corrosive and Acid Gas Emission	IEC60754: Part 2
Smoke Emission	IEC61034-2

Fibre Characteristics

Fibre Type	ITU-T G.652D
Attenuation (Cabled)	1310 nm ≤ 0.35 dB/km 1550 nm ≤ 0.21 dB/km 1625 nm. ≤ 0.23 dB/km
Chromatic Dispersion	1285-1330 nm. ≤ 3.5 ps/nm.km 1550 nm. ≤ 18 ps/nm.km
PMD (Max. Individual)	≤ 0.2 ps/√km
PMD (Link design value)	≤ 0.06 ps/√km
Cable cut off wavelength λcc	≤ 1260 nm
MFD	1310 nm 9.2 ± 0.4 µm 1550 nm 10.4 ± 0.5 µm
Core-Cladding Concentricity Error	≤ 0.5 µm
Cladding Diameter	125 ± 0.7 µm
Cladding Non Circularity	≤ 0.8 %
Coating Diameter	242 ± 5 µm

Fibre Type	OM3	OM4
Attenuation	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km
Bandwidth	850 nm ≥ 1500 MHz.km 1300 nm ≥ 500 MHz.km	850 nm ≥ 3500 MHz.km 1300 nm ≥ 500 MHz.km
Core Diameter	50.0 ± 2.5 µm	
Core-Cladding Concentricity Error	≤ 1.0 µm	
Cladding Diameter	125 ± 1.0 µm	
Cladding Non Circularity	≤ 1.0 %	
Coating Diameter	242 ± 7 µm	

Applicable Standards

IEC 60793, IEC 60794, ITU-T, RoHS, REACH, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide