VEYRA
FIBRE

Sacrificial Jacket Fibre Optic Cables

Polyethylene Sacrificial Sheath
Outdoor installation

LSZH Sacrificial Sheath
Flame retardant

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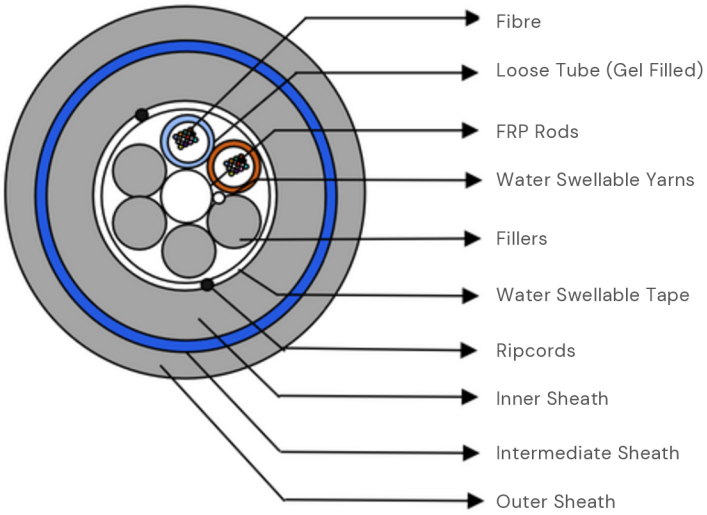
VEYRA FIBRE

PRODUCT SPECIFICATION

PE Sacrificial Jacket Fibre Optic Cable

0xxx-xx-xxMTD4-000-xx

The multitube PE/PA fibre optic cable with a sacrificial outer sheath is designed for outdoor duct installations in demanding environments. It features optical fibres housed in gel-filled loose tubes, stranded around a central FRP strength member. Water-swellable yarns and tapes protect the cable core against moisture ingress, and provide enhanced tensile strength. A dual-layer thermoplastic jacket of polyethylene and nylon provides UV, abrasion, and termite resistance. The cable is further protected by a sacrificial polyethylene sheath, which offers an added layer of defence during installation and can be removed post-deployment to improve access or handling.



Representative diagram, not to scale

Key Features & Benefits

- Water blocked with Gel-filled loose tubes, swellable tapes and yarns
- Nylon Intermediate Layer enhances resistance to abrasion, chemical exposure and termites
- UV-stabilised PE Outer jacket provide rugged protection for outdoor use
- Sacrificial Outer Sheath protects the cable during installation; easily removable

Applications

- Suitable for use in long-haul duct routes, metro networks, and infrastructure corridors including rail, road, and utility pathways
- Termite-prone or chemically aggressive soil environments
- Rural and semi-urban distribution networks
- Fibre routes installed in ducts (pulling or air-blown)

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	11.2 ± 0.5 mm	95 kg/km ± 10 %
12	12	1	5	FRP Rod	11.2 ± 0.5 mm	95 kg/km ± 10 %
24	12	2	4	FRP Rod	11.2 ± 0.5 mm	95 kg/km ± 10 %
48	12	4	2	FRP Rod	11.2 ± 0.5 mm	95 kg/km ± 10 %
72	12	6	-	FRP Rod	11.2 ± 0.5 mm	95 kg/km ± 10 %
96	12	8	-	FRP Rod PE Upcoated	12.5 ± 0.5 mm	125 kg/km ± 10 %
144	12	12	-	FRP Rod PE Upcoated	15.0 ± 1.0 mm	175 kg/km ± 10 %

Moisture Barrier	Water Swellable Yarn
Core Wrapping	Water Swellable Tape
Inner Sheath	HDPE – Black
Intermediate Sheath	Nylon – Blue - UV Stabilised
Outer Sheath	HDPE – Black*– UV Stabilised *other outer 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

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	2000 N	IEC-60794-1-21-E1
Crush Resistance	2000 N/100 mm × 100 mm	IEC-60794-1-21-E3
Impact Strength	10 N.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	Installation: 20 x D After Installation: 15 x D	IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours	IEC-60794-1-22-F5
Environmental Performance	Installation -20 °C to + 60 °C Operation -30 °C to + 70 °C Storage. -40 °C to + 70 °C	IEC-60794-1-22-F1

Fibre Characteristics

Fibre Type	ITU-T G.652D
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

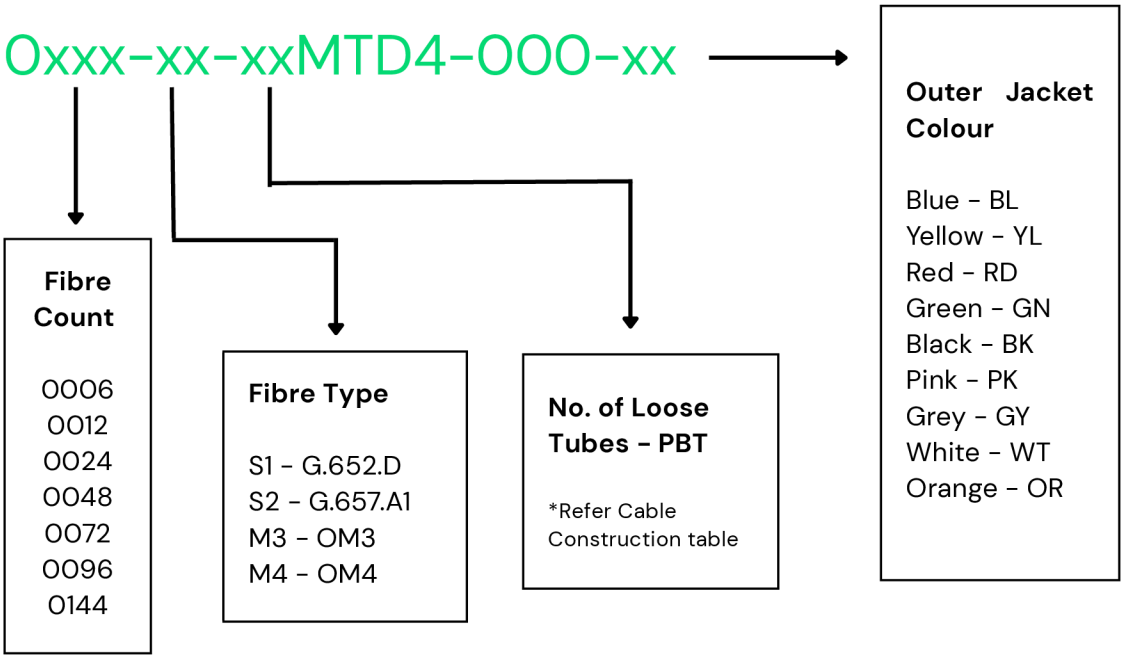
Fibre Type	OM3	OM4
Attenuation	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km	850 nm ≤ 3.0 dB/km 1300 nm ≤ 1.5 dB/km
Bandwidth	850 nm ≥ 1500 MHz.km 1300 nm ≥ 500 MHz.km	850 nm ≥ 3500 MHz.km 1300 nm ≥ 500 MHz.km

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, ANSI/ICEA S-87-640, Telcordia GR-20 AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide



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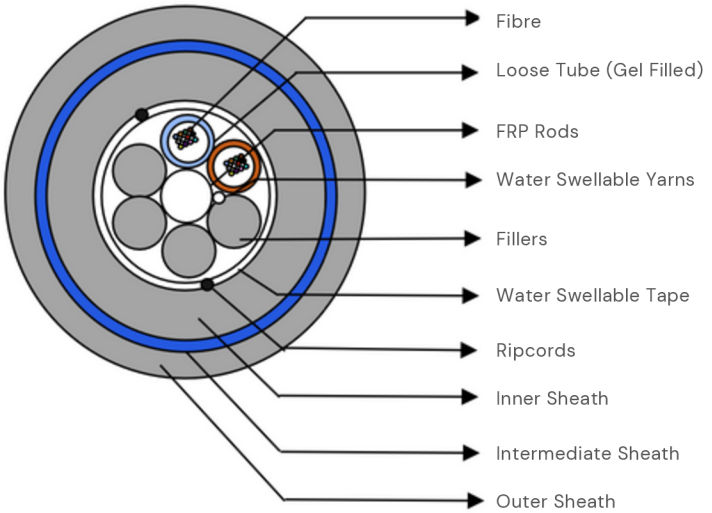
VEYRA FIBRE

PRODUCT SPECIFICATION

LSZH Sacrificial Jacket Fibre Optic Cable

0xxx-xx-xxMTD5-000-xx

The multi-tube PE/PA fibre optic cable with a sacrificial LSZH outer sheath is designed for installations in areas requiring enhanced fire performance. Optical fibres are housed in gel-filled loose tubes stranded around a central FRP strength member. Water-swellable yarns and tapes protect the cable core against moisture ingress and contribute to tensile performance. A dual-layer thermoplastic jacket of polyethylene and nylon provides UV, abrasion and termite resistance. The removable LSZH sacrificial sheath adds an extra layer of protection during pulling/installation and delivers low-smoke, halogen-free performance (e.g., IEC 60332, IEC 60754, IEC 61034), and can be stripped post-deployment to improve access or handling.



Representative diagram, not to scale

Key Features & Benefits

- Water blocked with Gel-filled loose tubes, swellable tapes and yarns
- Nylon Intermediate Layer enhances resistance to abrasion, chemical exposure and termites
- LSZH sacrificial outer sheath for compliance with indoor flame-retardant requirements

Applications

- Long-haul duct routes, metro networks and infrastructure corridors (rail, road and utility pathways)
- Termite-prone environments
- Rural and semi-urban distribution networks

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
12	12	1	5	FRP Rod	11.7 ± 0.5 mm	125 kg/km ± 10 %
24	12	2	4	FRP Rod	11.7 ± 0.5 mm	125 kg/km ± 10 %
48	12	4	2	FRP Rod	11.7 ± 0.5 mm	125 kg/km ± 10 %
72	12	6	-	FRP Rod	11.7 ± 0.5 mm	125 kg/km ± 10 %

Moisture Barrier	Water Swellable Yarn
Core Wrapping	Water Swellable Tape
Inner Sheath	HDPE – Black
Intermediate Sheath	Nylon – Blue - UV Stabilised
Outer Sheath	LSZH – Yellow*– UV Stabilised *other outer 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

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	2000 N	IEC-60794-1-21-E1
Crush Resistance	2000 N/100 mm × 100 mm	IEC-60794-1-21-E3
Impact Strength	1 kg.m	IEC-60794-1-21-E4
Torsion	± 180 °	IEC-60794-1-21-E7
Minimum Bend Radius	Installation: 20 x D After Installation: 10 x D	IEC-60794-1-21-E11
Water Penetration Test	1 m water head, 3 m sample, 24 hours	IEC-60794-1-22-F5
Environmental Performance	Installation -20 °C to + 60 °C Operation -40 °C to + 70 °C Storage. -40 °C to + 70 °C	IEC-60794-1-22-F1

Fibre Characteristics

Fibre Type	ITU-T G.657.A1
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 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

Applicable Standards

IEC 60793, IEC 60794, IEC 60332-1, IEC 60754-1/2, IEC 61034-2, ITU-T, RoHS, REACH, ANSI/ICEA S-87-640, Telcordia GR-20, AS/CA S008, AS 1049, AS 2857, AS/NZS ISO 9001

Ordering Guide