



Tight Buffer Fibre Optic Cables

LSZH Jacket

I/O rated, flame retardant

PU (Polyurethane) Jacket

Flame retardant, ruggedised tactical



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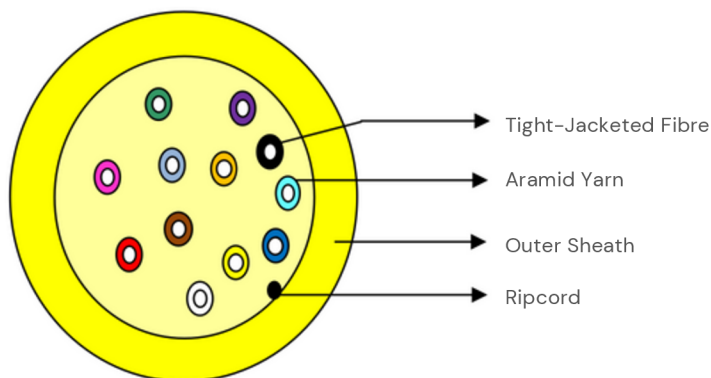


info@veyrafibre.com.au

Tight Buffer Distribution Fibre Optic Cable

00xx-xx-01TB3-000-xx

The Tight Buffer Distribution Fibre Optic Cables are compact, robust indoor/outdoor cables featuring individually tight-buffered fibres surrounded by aramid yarns and protected by a durable LSZH (Low Smoke Zero Halogen) outer sheath. Available in fibre counts from 4 to 24 cores, these cables offer excellent mechanical strength, flame resistance, and ease of handling and installation.



**Representative diagram, not to scale*

Key Features

- Tight-buffered fibres: Enable easy stripping and connectorization
- Aramid yarn strength members: Provide excellent crush resistance
- LSZH outer sheath: Flame-retardant, low smoke and halogen-free
- Flexible & compact design: Easy routing and installation in tight spaces or conduit systems
- All dielectric construction, requiring no bonding or grounding

Applications and Benefits

- Horizontal and vertical (riser) backbone cabling in commercial buildings and data centres
- In-building fibre distribution and zone cabling
- Patch cords, pigtails, and termination into panels or enclosures
- FTTx, control rooms, and equipment interconnects
- Suitable for short outdoor runs in protected pathways (duct/tray)

Cable Construction & Performance

Fibre Count	Cable Diameter	Cable Weight
4	3.8 ± 0.5 mm	15.0 kg/km
6	5.6 ± 0.5 mm	30.0 kg/km
12	6.5 ± 0.5 mm	40.0 kg/km
24	8.5 ± 0.5 mm	60.0 kg/km
Tight Buffer – LSZH	900 ± 50 µm	
Peripheral Strength Member	Aramid Yarns	
Outer Sheath	LSZH – Yellow (other jacket colours on request)	
No of Ripcords	1 No – Polyester	
Tensile Strength	500 N	IEC-60794-1-21-E1
Crush Resistance	1000 N/10cm	IEC-60794-1-21-E3
Minimum Bend Radius	20 x D	IEC-60794-1-21-E11
Environmental Performance	Installation – 20 °C to + 50 °C Operation – 20 °C to + 60°C Storage. – 20 °C to + 60 °C	IEC-60794-1-22-F1

Colour Coding – Fibre and Loose Tubes

Fibre Colour	Nt
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Tight Jacketing Colour

Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Bl*	Or*	Gr*	Br*	Sl*	Wh*	Rd*	Bk*	Yl*	Vi*	Pk*	Aq*

Longitudinal Black Ring marking on 13th to 24th tight buffers except 19th tight buffer which will be White Longitudinal Ring Marking.

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
Zero Dispersion Slope	≤ 0.092 ps/nm ² .km	
Zero Dispersion Wavelength	1300 – 1324 nm	
Polarisation Mode Dispersion	≤ 0.15 ps/√km	
Cable cut off wavelength λ _{cc}	≤ 1260 nm	
MFD	1310 nm	9.1 ± 0.3 μm
	1550 nm	10.3 ± 0.5 μm
Core–Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.8 %	
Secondary Coating Diameter (Uncoloured)	242 ± 5 μm(Uncoloured)	

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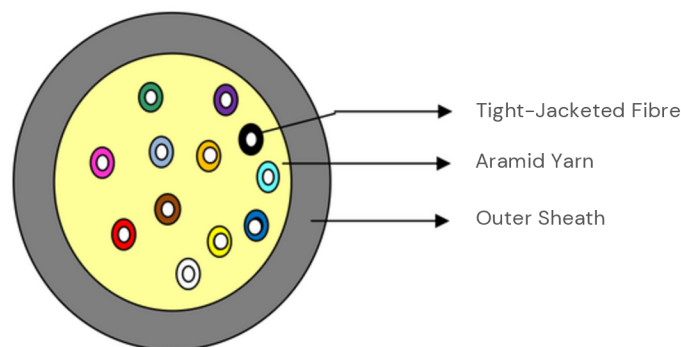


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Tactical Tight Buffer Fibre Optic Cable

00xx-xx-01TB8-000-xx

The Tactical Tight Buffer Fibre Optic Cable with flame-retardant polyurethane (PU) jacket is built for demanding environments requiring both rugged durability and fire safety. Each fibre is individually tight-buffered for direct termination, reinforced with high-tensile aramid yarns for strength and protection. A flame-retardant grade polyurethane (PU) outer sheath ensures resistance to abrasion, impacts, and mechanical stress, while maintaining flexibility and flame compliance. Suitable for both permanent installations and temporary deployments, the cable delivers reliable, reusable performance where safety and durability are critical.



**Representative diagram, not to scale*

Key Features

- Flame-retardant PU jacket – tough, flexible, and flame compliant
- Tight-buffered fibres – easy termination and connectorisation
- Aramid yarn strength – tensile reinforcement and durability
- Rugged design – resists abrasion, crushing, and repeated handling
- Environmental protection – UV, moisture, and fungus resistant

Applications and Benefits

- Indoor/outdoor runs requiring fire safety and durability
- Temporary or mobile networks with repeated deployment/retrieval
- Critical communications in defence, utilities, or emergency response
- Broadcast, events, and sensing in rugged environments

Cable Construction & Performance

Fibre Count	Cable Diameter	Cable Weight
6	6.1 ± 0.5 mm	33.0 kg/km
12	6.4 ± 0.5 mm	36.0 kg/km
24	8.5 ± 0.5 mm	60.0 kg/km
Tight Buffer-LSZH	900 ± 50 µm	
Peripheral Strength Member	Aramid Yarns	
Outer Sheath	Flame-Retardant Grade Polyurethane (PU)	
Tensile Strength	Short Term: 1000 N	IEC-60794-1-21-E1
Crush Resistance	1800 N/10cm	IEC-60794-1-21-E3
Minimum Bend Radius	Installation: 10*D Long Term: 5*D	IEC-60794-1-21-E11
Environmental Performance	Installation - 20 °C to + 70 °C Operation - 20 °C to + 70°C Storage. - 20 °C to + 70 °C	IEC-60794-1-22-F1

Colour Coding – Fibre and Loose Tubes

Fibre Colour	Nt
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Tight Jacketing Colour

Bl	Or	Gr	Br	Sl	Wh	Rd	Bk	Yl	Vi	Pk	Aq
Bl*	Or*	Gr*	Br*	Sl*	Wh*	Rd*	Bk*	Yl*	Vi*	Pk*	Aq*

Longitudinal Black Ring marking on 13th to 24th tight buffers except 19th tight buffer which will be White Longitudinal Ring Marking.

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Fibre Characteristics

Fibre Type	ITU-T G.657A1	
Attenuation	1310 nm 1550 nm	≤ 0.36 dB/km ≤ 0.23 dB/km
Chromatic Dispersion	1285–1330 nm 1550 nm 1625 nm	≤ 3.5 ps/nm.km ≤ 18 ps/nm.km ≤ 22 ps/nm.km
Zero Dispersion Slope	≤ 0.092 ps/nm ² .km	
Zero Dispersion Wavelength	1300 – 1324 nm	
Polarisation Mode Dispersion	≤ 0.15 ps/ $\sqrt{\text{km}}$	
Cable cut off wavelength λ_{cc}	≤ 1260 nm	
MFD	1310 nm 1550 nm	9.1 ± 0.3 μm 10.3 ± 0.5 μm
Core–Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	125 ± 0.7 μm	
Cladding Non Circularity	≤ 0.8 %	
Secondary Coating Diameter (Uncoloured)	242 ± 5 μm (Uncoloured)	

Fibre Type	OM3		OM4	
Attenuation	850 nm 1300 nm	≤ 3.0 dB/km ≤ 1.0 dB/km	850 nm 1300 nm	≤ 3.0 dB/km ≤ 1.0 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 \pm 2.5 μ m			
Core-Cladding Concentricity Error	≤ 1.0 μ m			
Cladding Diameter	125 \pm 1.0 μ m			
Cladding Non Circularity	≤ 1.0 %			
Coating Diameter	242 \pm 7 μ m			

Applicable Standards

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

