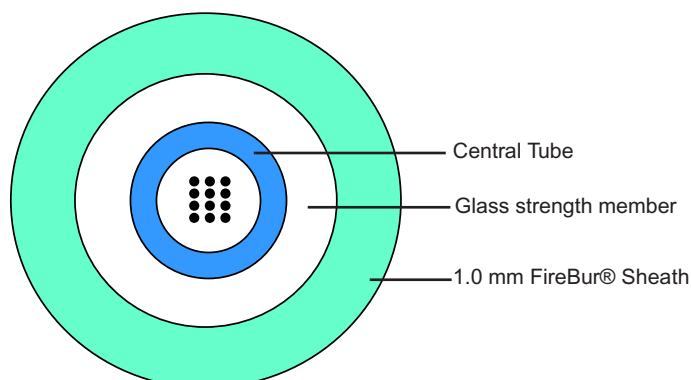


Optic fibre cable OM 3 50/125 - loose tube indoor/outdoor

- 24 fibres

Cat. No(s): 325 53



1. USE

- Combi indoor/outdoor use
- Lan backbones
- Telecom access lines
- Campus networks

This cable has a central loose tube with up to 24 fibres, a layer of glass tapes for added robustness and tensile strength. A 1.0 mm Firebur® sheath completes the cable construction.

2. GENERAL

This fibre is a graded-index multimode fibre optimised for 10 Gb/s transmission speeds. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850, but can also be used at 1 300 nm. The fibre is compliant with all relevant network standards.

3. CABLE TECHNICAL SPECIFICATIONS

3.1 Standards

ISO 11801 2nd edition
EN 50173-1:2002

IEC 60794-1

3.2 Construction

Loose tube	ø3.5 mm loose tube with 24 fibres
Strength member	Waterblocked E-Glass fibre elements
Sheath	1.0 mm green FireBur® sheath, UV stabilised, IEC 50290-2-27

3.3 Fire rating

IEC 60332-1-2	Single vertical wire test
IEC 60754-1	No halogens
IEC 60754-2	No acid matters
IEC 61034-2	No dense smoke

3.4 Heat of combustion

325 53	800 MJ/km	0.22 kWh/m
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3.5 Physical properties - IEC 60794-1

Nominal outer diameter	-	6.5 mm
Nominal weight	-	45 kg/km
Maximum installation tensile strength	E1	1000 N (fibre strain less than 1/2 of proof test level)
- Short term tensile strength	E1	750 N (fibre strain less than 1/3 of proof test level)

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- Permanent tensile strength	E1	500 N (no attenuation change, fibre strain less than 1/4 of proof test level)
Compressive strength (crush)	E3	1500 N
Impact	E4	15 Nm (no attenuation change, no broken cable elements)
Torsion	E7	5 cycles +/- 1 turn
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter of 100 mm
Min. Bending radius, unloaded	E11	R = 60 mm
Min. Bending radius, loaded	-	R = 100 mm
Temperature range	F1	Storage: - 40°C to + 60°C
		Installation: - 30°C to + 40°C
		Operation: - 30°C to + 60°C
Water penetration	F5B	No water on free end

4. FIBRES TECHNICAL SPECIFICATIONS**4.1 Standards and Norms**

IEC 60793-2-10 category A1a.2;

EN 60793-2-10: type A1a.2

ITU Recommendation G.651

TIA/EIA-492 AAAB

EN 50 173:2002, category OM 3

ISO/IEC 11801:2002, category OM 3

IEEE 802.3 - 2002 incl. amendment 802.3ae - 2002.

4.2 Attenuation (of cable with fibres) - IEC 60793-1-40

Maximum value of cable at 850 nm	≤ 3 dB/km
Maximum value of cable at 1300 nm	≤ 1 dB/km
Maximum value of fibre (for reference only)	≤ 2.5 dB/km
Maximum value of fibre (for reference only)	≤ 0.7 dB/km
Inhomogeneity of OTDR trace for any two 1000 meter fibre lengths	Max. 0.1 dB/km

4.3 Bandwidth - IEC 60793-1-41

OFL value at 850 nm	≥ 1500 MHz•km
OFL value at 1300 nm	≥ 500 MHz•km
Effective Modal Bandwidth (EMB). Effective Modal Bandwidth I assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49	≥ 2000 MHz•km
Group index of refraction at 850 nm	1.482
Group index of refraction at 1300 nm	1.477

4.4 Fibre properties according to IEC - IEC 60793-1

Attribute	Measurement method	Units	Limits
Core diameter	IEC/EN 60793-1-20	µm	50 ± 2.5
Cladding diameter	IEC/EN 60793-1-20	µm	125 ± 1
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 1.0
Core non-circularity	IEC/EN 60793-1-20	%	≤ 5
Core-cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1.5
Primary coating diameter - uncoloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating diameter - coloured	IEC/EN 60793-1-21	µm	250 ± 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 10
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈1%)
Typical average strip force	IEC/EN 60793-1-32	N	1.7
Strip force (peak)	IEC/EN 60793-1-32	N	1.3 ≤ F _{peak.strip} ≤ 8.9
Numerical aperture	IEC/EN 60793-1-43	N	0.200 ± 0.015