

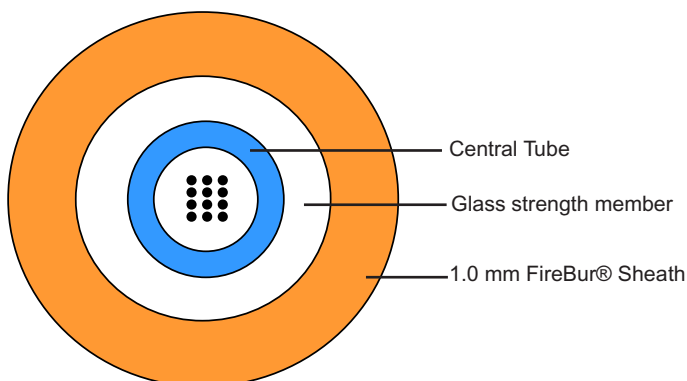
Optic fibre cable OM 2 - loose tube indoor/outdoor

- 4 fibres Cat. No(s): 325 59

- 6 fibres Cat. No(s): 325 04

- 12 fibres Cat. No(s): 325 06

- 24 fibres Cat. No(s): 325 60



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 suitable for transmission speeds of up to 10 Gb/s. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850 and/or 1 300 nm. This fibre fulfils all requirements for an OM 2 fibre.

3. CABLE TECHNICAL SPECIFICATIONS

3.1 Standards

ISO 11801 2nd edition
EN 50173-1:2002
IEC 60794-1

3.2 Construction

Loose tube	ø2.8 mm jelly filled loose tube with 2-16 fibres; ø3.5 mm loose tube with 24 fibres
Strength member	Waterblocked E-Glass fibre elements
Sheath	1.0 mm green FireBur® fire 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 04 - 325 09 - 325 59	630 MJ/km	0.18 kWh/m
325 60	800 MJ/km	0.22 kWh/m

Optic fibre cable OM 2 - loose tube indoor/outdoor**- 4 fibres Cat. No(s): 325 59****- 6 fibres Cat. No(s): 325 04****- 12 fibres Cat. No(s): 325 06****- 24 fibres Cat. No(s): 325 60****3.5 Physical properties - IEC 60794-1**

Nominal outer diameter	-	325 04 - 325 09 - 325 59	6.0 mm
		325 60	6.5 mm
Nominal weight	-	325 04 - 325 09 - 325 59	40 kg/km
		325 60	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)	
- 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;

EN 60793-2-10: type A1a

ITU Recommendation G.651

TIA/EIA-492 AAAB

EN 50 173:2002 category OM2

ISO/IEC 11801:2002 category OM2.

IEEE 802.3-2002. with amendment 802.3ae - 2002.

ANSI/TIA/EIA-568.B.3 - 2000

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

Maximum at 850 nm	≤ 2.7 dB/km
Maximum at 1300 nm	≤ 0.8 dB/km
Typical value at 850 nm	≤ 2.5 dB/km
Typical value at 1300 nm	≤ 0.6 dB/km
Inhomogeneity of OTDR trace for any two 1000 meter fibre lengths	Max. 0.2 dB/km

4.3 Bandwidth - IEC 60793-1-41

850 nm	600 MHz•km
1300 nm	1200 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 ± 0.7
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 stripforce	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		0.200 ± 0.015