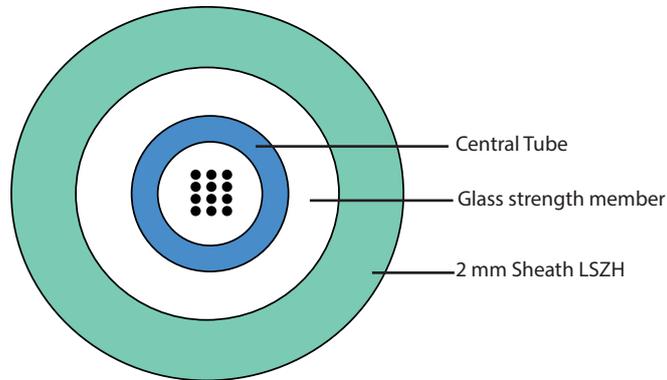


Optic fibre cable OM4 - loose tube indoor/outdoor Cca

12 fibres Cat. No(s): 0325 49



1. APPLICATION AND INSTALLATION

This cable can be used for LAN and WAN backbones, telecom access lines, fibre to business and fibre to the building drop connections : as well as fibre to the home drop and access connections.

With its LSOH sheathing this cable is ideal for indoor installations in ducts or on trays.

This cable features a high tensile strength and has glass yarns for limited rodent protection.

This cable is water-blocked and also well suited for limited outdoor use in ducts.

2. CABLE TECHNICAL SPECIFICATIONS

2.1 Standards

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

2.2 Construction

Loose tube	Ø 2.8 mm jelly filled loose tube with 2-24 fibres	
Fibre colour code	1 Blue	13 Blue w/mark every 70 mm
	2 Orange	14 Orange w/mark every 70 mm
	3 Green	15 Green w/mark every 70 mm
	4 Brown	16 Brown w/mark every 70 mm
	5 Grey	17 Grey w/mark every 70 mm
	6 White	18 White w/mark every 70 mm
	7 Red	19 Red w/mark every 35 mm
	8 Black	20 White w/mark every 35 mm
	9 Yellow	21 Yellow w/mark every 35 mm
	10 Violet	22 Violet w/mark every 35 mm
	11 Pink	23 Pink w/mark every 35 mm
	12 Aqua	24 Turquoise w/mark every 35 mm
Strength member	E-Glass yarns	
Sheath	2 mm sheath, UV stabilised, IEC 50290-2-27 Colour = Aqua Ral 6027	

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2.3 Fire rating

IEC 60332-1-2	Single vertical wire test
IEC 60332-3-24	Bunched vertical wires test
IEC 60754-2	No acid matters
IEC 61034	No dense smoke
EN50399	Cca, S1a, d1, a1 (cable marking); also compliant with Class Dca and Eca

2.4 Physical properties- IEC 60794-1

Nominal outer diameter	-	2-24 fibres : 10 mm
Nominal weight	-	2-24 fibres : 112 kg/km
Maximum installation tensile strength	E1	3000 N (fibre strain \leq 0.5%)
Permanent tensile strength	E1	1500 N (fibre strain \leq 0.25%)
Compressive strength (crush)	E3	2000 N/100 mm
Impact	E4	20 Nm (no attenuation change, no broken cable elements)
Torsion	E7	5 cycles \pm 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 = 90 mm
Min. Bending radius, loaded	E18a	R = 180 mm
Temperature range	F1	Storage : - 40°C to + 70°C
		Operation : - 40°C to + 70°C Max attenuation 0.5dB/km for Multimode Max attenuation 0.2dB/km for Singlemode
Water penetration	F5B	No water on free end

2.5 Marking and packaging

Marking of the cable :

- Legrand
- Part number
- Description
- Euroclass : Cca, S1a, d1, a1
- Date code
- Batch number
- Measurement (remaining length in meters)

Catalogue number	0 325 49
Description	12 fibres OM4 LT In/Out LSZH
Colour	Aqua Ral 6027
Puck (m)	2000
Packaging	Reel

Optic fibre cable OM4 - loose tube indoor/outdoor Cca
12 fibres Cat. No(s): 0325 49

3. FIBRES TECHNICAL SPECIFICATIONS

3.1 Standards and Norms

IEC 60793-2-10 : type A1a.3 (in development)
 EN 60793-2-10: type A1a.3 (in development)
 TIA/EIA-492 AAAD

EN 50173-1:2007 Amendment AB category OM4
 ISO/IEC 11801:2002 Amendment 2 category OM4
 IEEE 802.3-2002 incl. amendment 802.3ae - 2002.

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

Maximum attenuation value of cable at 850 nm	≤ 3.0 dB/km
Maximum attenuation value of cable at 1300 nm	≤ 1.0 dB/km
Attenuation limit according to IEC 60793-2-10 at 850 nm	≤ 2.5 dB/km
Attenuation limit according to IEC 60793-2-10 at 1300 nm	≤ 0.7 dB/km
Attenuation difference between 1380 nm and 1300 nm	≤ 3 dB/km
Point discontinuity at 850 nm and 1300 nm	Max. 0.1 dB/km
Fibre bending loss R = 7.5 mm 850/1300 nm	≤ 0.2 dB / ≤ 0.5 dB
Fibre bending loss R = 15 mm 850/1300 nm	≤ 0.1 dB / ≤ 0.3 dB

3.3 Bandwidth - IEC 60793-1-41

OFL value at 850 nm	≥ 3500 MHz·km
OFL value at 1300 nm	≥ 500 MHz·km
Effective Modal Bandwidth (EMB) at 850 nm (assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49)	≥ 4700 MHz·km
Group index of refraction at 850 nm	1.482
Group index of refraction at 1300 nm	1.477

3.4 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	125.0 ± 1.0
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.7
Core non-circularity	IEC/EN 60793-1-20	%	≤ 5
Core-cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1
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 ≤ Fav.strip ≤ 3
Strip force (peak)	IEC/EN 60793-1-32	N	1.3 ≤ Fpeak.strip ≤ 8.9
Numerical aperture	IEC/EN 60793-1-43	N	0.200 ± 0.015