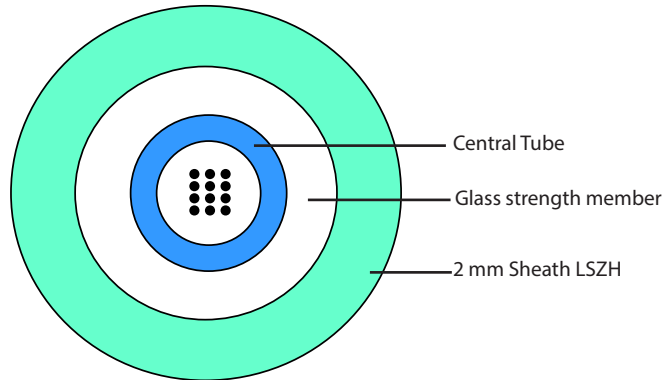


Optic fibre cable OM4 - loose tube indoor/outdoor Cca

12 fibres Cat. No(s): 0325 49

24 fibres Cat. No(s): 0 325 19



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
EN 50173-1
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	

Optic fibre cable OM4 - loose tube indoor/outdoor Cca

12 fibres Cat. No(s): 0325 49

24 fibres Cat. No(s): 0 325 19

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 : 7.5 mm
Nominal weight	-	2-24 fibres : 73 kg/km
Maximum installation tensile strength	E1	3 000 N (fibre strain \leq 0.5%)
Permanent tensile strength	E1	1000 N (fibre strain \leq 0.25%)
Compressive strength (crush)	E3	3000 N / 100 mm ($\Delta\alpha$ reversible) 1500 N / 100 mm (no attenuation change)
Impact	E4	20 J (striking surface r=300 mm) 5 J (striking surface r=12.5 mm)
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 75 mm

Min. Bending radius, unloaded	E11	R = 75mm (Temp. > -20°C)
Min. Bending radius, loaded	E18a	R = 150 mm
Temperature range	F1	Installation: -20°C to +60°C Storage & Operation: -40°C to +70°C (in the case of \leq -20°C temperature during operation, no sharp bends are allowed & bending radius > 150 mm for permanent)
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 19	0 325 49
Description	24 fibres OM4 LT In/Out LSZH Cca	12 fibres OM4 LT In/Out LSZH Cca
Colour	Aqua Ral 6027	Aqua Ral 6027
Puck (m)	1000	2000
Packaging	Reel	Reel

Optic fibre cable OM4 - loose tube indoor/outdoor Cca

12 fibres Cat. No(s): 0325 49

24 fibres Cat. No(s): 0 325 19

3. FIBRES TECHNICAL SPECIFICATIONS

3.1 Standards and Norms

IEC 60793-2-10 : type A1a.3
TIA/EIA-492 AAAD
ANSI/TIA-568.C
ISO/IEC 11801 Catégorie OM4
ISO/IEC 24764
ITU G.651.1

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 ($\approx 1\%$)
Typical average strip force	IEC/EN 60793-1-32	N	$1 \leq F_{\text{average.strip}} \leq 3$
Strip force (peak)	IEC/EN 60793-1-32	N	$1.3 \leq F_{\text{peak.strip}} \leq 8.9$
Numerical aperture	IEC/EN 60793-1-43	N	0.200 ± 0.015