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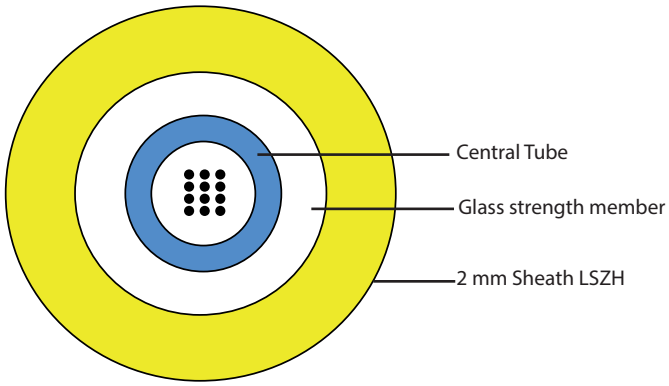
Optic fibre cable OS2 - loose tube indoor/outdoor Cca

- 12 fibres Cat. No(s).: 0 325 26



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 = Yellow Ral 1018	

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 ≤ 0.5%)
Permanent tensile strength	E1	1500 N (fibre strain ≤ 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 ± 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 26
Description	12 fibres OM4 LT In/Out LSZH
Colour	Aqua Ral 6027
Puck (m)	2000
Packaging	Reel

3. FIBRES TECHNICAL SPECIFICATIONS

3.1 Standards and Norms

IEC 60793-2-50 category B.1.3
EN 60793-2-50: class B1.3
ITU Recommendation G.652.D - the other ITU designations A, B and C are also fulfilled.
EN 50 173-1:2007, cat. OS2; also OS1 requirements are fulfilled
ISO/IEC 11801:2002, cat. OS1
ISO/IEC 24702:2006, cat. OS2; also OS1 requirements are fulfilled
IEEE 802.3 - 2002 incl. 802.3ae

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

1310 nm – 1625 nm	≤ 0.39 dB/km
1550 nm	≤ 0.25 dB/km
Local discontinuity at 1310 nm and 1550 nm	Max. 0.1 dB/km

3.3 Bandwidth - IEC 60793-1-41

Group index of refraction at 1310 nm	1.467
Group index of refraction at 1550 nm	1.468
Group index of refraction af 1625 nm	1.468

3.4 Fibre properties according to IEC - IEC 60793-1

Attribute	Measurement method	Units	Limits
Cladding diameter	IEC/EN 60793-1-20	µm	125 ± 0.7
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.7
Core (MDF) - cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 0.5
Primary coating diameter - uncoloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating diameter - coloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 12
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈1%)
Strip force (peak)	IEC/EN 60793-1-32	N	1.2 ≤ Fpeak.strip ≤ 8.9
Chromatic dispersion coefficient:	IEC/EN 60793-1-42		
In the interval 1285 nm – 1330 nm		ps/km • nm	≤ 3
At 1550 nm		ps/km • nm	≤ 18
At 1625 nm		ps/km • nm	≤ 22
Zero dispersion wavelength, λ0		nm	1311 ± 11
Zero dispersion slope		ps/(nm2 • km)	≤ 0.090
Cut-off wavelength	IEC/EN 60793-1-44	λcc nm	≤ 1260
Mode field diameter at 1310 nm	IEC/EN 60793-1-45	µm	9 ± 0.4
Mode field diameter at 1550 nm		µm	10.1 ± 0.5
Macrobending loss at : 100 turns on a Ø 50 mm mandrel at 1310 and 1550 nm 100 turns on a Ø 60 mm mandrel at 1625 nm	IEC/EN 60793-1-47	dB	≤ 0.05
Polarisation mode dispersion (PMD) coefficient, cabled	IEC/EN 60793-1-48	ps/√km	≤ 0.5
PMDQ Link Design Value	IEC/EN 60794-3	ps/√km	≤ 0.2