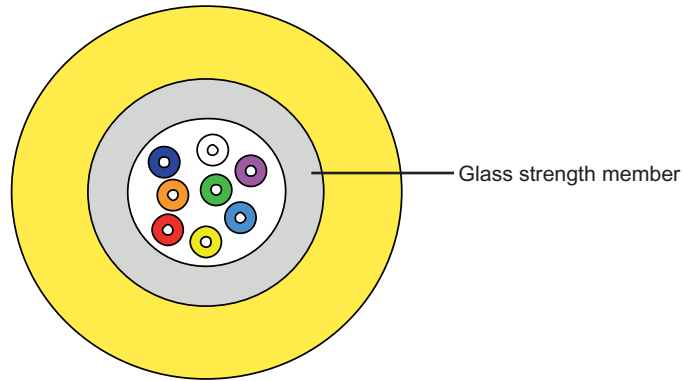


**Optic fibre cable OS1/OS2 - 900 µm tight tube indoor/outdoor**  
**- 12 fibres Cat. No(s): 0 325 50**



**1. USE**

- As backbone in LAN's
- For premises wiring
- Indoor and outdoor in ducts

**2. GENERAL**

This fibre is a graded-index singlemode 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 OS1/OS2 fibre.  
This fibre is Easy Strip.

**3. CABLE TECHNICAL SPECIFICATIONS**

**3.1 Standards**

- EN 187 000
- IEC 60794-2
- IEC 60794-2-20
- ISO 11801 2nd edition
- EN 50173-1

**3.2 Construction**

Fibre	12 tightly buffered fibres 900 µm +/- 50 µm
Strength member	E-Glass rovings
Sheath	1.1 mm yellow FireBur® fire retardant, UV stabilised, EN 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**

<b>0 325 50</b>	1180 MJ/km	0.33 KWh/m
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**3.5 Physical properties - IEC 60974-1-2**

Permanent tensile strength	E11	12 fibres	500 N
Short term tensile strength (some days)	E11	12 fibres	1000 N
Maximum installation load (a few hours)	-	12 fibres	1500 N
Impact	E4	20 J	
Crush (compressive strength)	E3	3000 N/100 mm	
Torsion	E7	5 cycles +/- 1 turn	
Temperature range	F1	Operation and Installation	- 20°C to 70°C
		Storage	- 40°C to 70°C

**3.6 Mechanical properties**

Reference	Nominal diameter	Nominal cable weight	Minimum bending radius
0 325 50	6.5 mm	55 kg/km	130/75 mm

**4. FIBRES TECHNICAL SPECIFICATIONS**

**4.1 Standards and Norms**

IEC 60793-2-50 class B1.3  
 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

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

1310 nm – 1625 nm	≤ 0.39 dB/km
1550 nm	≤ 0.25 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**

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

**Optic fibre cable OS1/OS2 - 900 µm tight tube indoor/outdoor**  
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**4.4 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 (MFD) non-circularity	IEC/EN 60793-1-20	%	≤ 6
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	250 ± 15
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	1.0 ≤ F <sub>peak.strip</sub> ≤ 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, λ <sub>0</sub>		nm	1311 ± 11
Zero dispersion slope		ps/(nm <sup>2</sup> • km)	≤ 0.090
Cut-off wavelength	IEC/EN 60793-1-44	λ <sub>c</sub> nm	1034 - 1330
		λ <sub>cc</sub> 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 1550 nm, 100 turns on a ø 60 mm mandrel	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