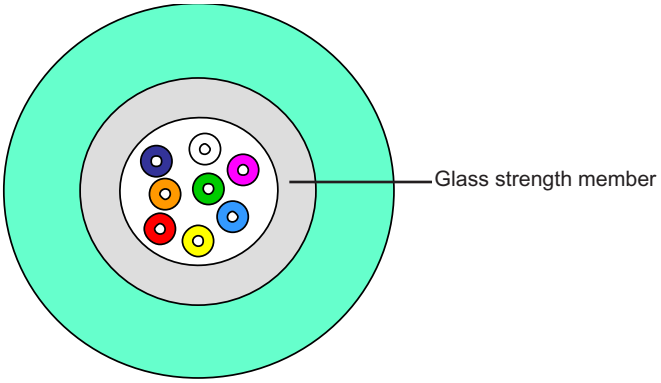
87045 LIMOGES Cedex
Telephone: 33 0 5 55 06 87 87 - Fax: 33 0 5 55 06 88 88

Optic fibre cable OM 3 - 900 µm tight tube indoor/outdoor

- 6 fibres Cat. No(s).: 325 10
- 12 fibres Cat. No(s).: 325 11
- 24 fibres Cat. No(s).: 325 52



1. USE

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

2. GENERAL

This fibre is a graded-index multimode fibre optimised for 10 Gb/s transmission speeds. It has a 50 µm core diameter and a 125 µm cladding diameter. The fibre is designed for use at 850, but can also be used at 1 300 nm. The fibre is compliant with all relevant network standards. This fibre is Easy Strip.

3. CABLE TECHNICAL SPECIFIATIONS

3.1 Standards

EN 187 000
IEC 60794-2
IEC 60794-2-20
ISO 11801 2nd edition
EN 50 173-1

3.2 Construction

Fibre	6 or 12 tightly buffered fibres 900 µm +/- 50 µm.
Strength member	E-Glass rovings
Sheath	1.1 mm Aqua 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

325 10	845 MJ/km	0.23 KWh/m
325 11	1180 MJ/km	0.33 KWh/m
325 52	1700 MJ/km	0.47 KWh/m

3.5 Physical properties - IEC 60974-1-2

Permanent tensile strength	E11		500 N
Short term tensile strength (some days)	E11		1000 N
Maximum installation load (a few hours)	-		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 µC to 70 µC
		Storage	- 40 µC to 70 µC

3.6 Mechanical properties

Reference	Nominal diameter	Nominal cable weight	Minimum bending radius
325 10	6 mm	40 kg/km	100/50 mm
325 11	6.5 mm	55 kg/km	130/75 mm
325 52	8.5 mm	90 kg/km	230/115 mm

4. FIBRES TECHNICAL SPECIFIATIONS

4.1 Standards and Norms

IEC 60793-2-10 category A1a.2;
EN 60793-2-10: type A1a.2
ITU Recommendation G.651
TIA/EIA-492 AAAB
EN 50 173:2002 category OM3
ISO/IEC 11801:2002 category OM3.
IEEE 802.3-2002 incl. amendment 802.3ae - 2002.

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

Maximum value of cable at 850 nm	≤ 3.0 dB/km
Maximum value of cable at 1300 nm	≤ 1.0 dB/km
Maximum value of fibre (for reference only) at 850 nm	≤ 2.5 dB/km
Maximum value of fibre (for reference only) at 1300 nm	≤ 0.7 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

OFL value at 850 nm	≥ 1500 MHz•km
OFL value at 1300 nm	≥ 500 MHz•km
Effective Modal Bandwidth (EMB) Effective Modal Bandwidth I assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49	≥ 2000 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 ± 1.0
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 ± 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	1.7
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