General purpose OM2 multi mode 50 µm fibre

OM2 fibre for use at 850 nm and/or at 1300 nm

GENERAL

This fibre is a graded-index multimode 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 1300 nm.
This fibre is suitable for use in premises wiring application like LAN's with video, data and or voice services using LED, VCSEL and Fabry-Perot laser sources. The fibre is compliant with all relevant network standards.

STANDARDS AND NORMS

This fibre fulfils the requirements of:
- IEC 60793-2-10 Category A1a;
- EN 60793-2-10: type A1a
- ITU Recommendation G.651
- TIA/EIA-492AAAB

When cabled, the fibres fulfil the requirements for use in a number of cabling systems, among them are:
- EN 50 173:2002 category OM2.
- ISO/IEC 11801:2002 category OM2.
- IEEE 802.3 - 2002. with amendment 802.3ae - 2002.
- ANSI/TIA/EIA-568.B.3 - 2000

This fibre may be used as an alternative for 62.5 µm fibre according to:
- ANSI X3.166-1990
- IEC 9314-3

Testing methods are in accordance with the following standards:
- IEC 60793-1-XX:2002
- EN 60793-1-XX:2002

GEOMETRICAL AND MECHANICAL PROPERTIES

Refer to the table below.

CORE

The core is germanium doped.

COATING

Dual layer UV curable acrylate, type DLPC9.

The coating offers excellent stable stripping performance, and a unique high and stable value for the dynamic stress corrosion coefficient. This gives a greatly improved mechanical protection of the fibre when used in harsh environments.

OPTICAL PROPERTIES

Attenuation (of cable with fibres):
At 850 nm: **≤ 2.7 dB/km**
At 1300 nm: **≤ 0.8 dB/km**

Bandwidth (OFL):
At 850 nm: **≥ 500 MHz • km**
At 1300 nm: **≥ 800 MHz • km**

Numerical aperture: 0.200 ± 0.015.

Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths: Max.: 0.2 dB/km.

Group index of refraction:
At 850 nm 1.482
At 1300 nm: 1.477

Dimensional and mechanical properties:

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 ± 2
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 1
Core non-circularity	IEC/EN 60793-1-20	%	≤ 6
Core-cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 1.5
Primary coating diameter - uncoloured	IEC/EN 60793-1-21	µm	245 ± 10
Primary coating diameter - coloured	IEC/EN 60793-1-21	µm	250 ± 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 6
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 12.5
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Strip force (average)	IEC/EN 60793-1-32	N	$1 \le F_{ave.strip} \le 5$
Strip force (peak)	IEC/EN 60793-1-32	N	$1.3 \le F_{peak.strip} \le 8.9$

DRAKA DENMARK OPTICAL CABLE A/S
WWW.DRAKACOMTEQ.COM
PHONE: +45 43 48 20 50
FAX: +45 43 48 26 59