

# MaxCap-BB-OM2+ multimode fibre

## Properties of cabled fibre

### General and application

This fibre is a laser-optimised, bend-insensitive graded-index multimode fibre suitable for transmission speeds of 10 Gb/s or higher. It has a 50  $\mu\text{m}$  core diameter and a 125  $\mu\text{m}$  cladding diameter. The fibre is optimised for maximum transmission properties at 850 nm; but is also well suited for 1300 nm systems. This fibre supports 750 m link length for a 1000BASE-SX system and 150 m for 10GBASE-SX, as well as 550 m for a 1000BASE-LX system. The outstanding bending performance of this fibre supports future compact cable management.

### Standards and Norms

IEC 60793-2-10 Category A1a	EN 50173-1:2007 category OM2
EN 60793-2-10: type A1a	ISO/IEC 11801:2002 category OM2.
TIA/EIA-492 AAAB	IEEE 802.3 - 2002 with amendment 802.3ae - 2002.
	ANSI/TIA/EIA-568.B.3 - 2000

### Cable attenuation

**IEC 60793-1-40**

Maximum at 850 nm	$\leq 2.7$ dB/km
Maximum at 1300 nm	$\leq 0.8$ dB/km
Typical value at 850 nm	$\leq 2.5$ dB/km
Typical value at 1300 nm	$\leq 0.6$ dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.1 dB/km
Fibre bending loss R=7.5 mm 850/1300 nm	$\leq 0.2$ dB / $\leq 0.5$ dB
Fibre bending loss R=15 mm 850/1300 nm	$\leq 0.1$ dB / $\leq 0.3$ dB

### Bandwidth

**IEC 60793-1-41**

Overfilled (OFL) modal bandwidth at 850 nm	$\geq 700$ MHz • km
Overfilled (OFL) modal bandwidth at 1300 nm	$\geq 500$ MHz • km
Effective Modal Bandwidth (EMB) at 850 nm ( <i>Assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49</i> )	$\geq 900$ MHz • km

### Group index of refraction

**IEC 60793-1-22**

Group index of refraction at 850 nm	1.482
Group index of refraction at 1300 nm	1.477

### Other properties

**IEC 60793-1-xx**

Attribute	Measurement method	Units	Limits
Core diameter	IEC/EN 60793-1-20	$\mu\text{m}$	$50 \pm 2.0$
Cladding diameter	IEC/EN 60793-1-20	$\mu\text{m}$	$125.0 \pm 1.0$
Cladding non-circularity	IEC/EN 60793-1-20	%	$\leq 1.0$
Core non-circularity	IEC/EN 60793-1-20	%	$\leq 5$
Core-cladding concentricity error	IEC/EN 60793-1-20	$\mu\text{m}$	$\leq 1.5$
Primary coating diameter - uncoloured	IEC/EN 60793-1-21	$\mu\text{m}$	$242 \pm 0.5$
Primary coating diameter - coloured	IEC/EN 60793-1-21	$\mu\text{m}$	$250 \pm 15$
Primary coating non-circularity	IEC/EN 60793-1-21	%	$\leq 5$
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	$\mu\text{m}$	$\leq 6$
Proof stress level	IEC/EN 60793-1-30	GPa	$\geq 0.7$ ( $\approx 1\%$ )
Typical average stripforce	IEC/EN 60793-1-32	N	1.7
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		$0.200 \pm 0.015$

Note: The Draka policy of continuous improvement may cause in changed specifications without prior notice