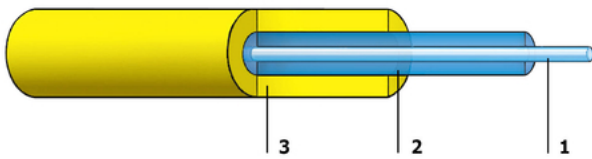


# Multimode fibre, G50/125/250, OM2

bend optimized

IEC 60793-2-10 Type A1-OM2b, ISO/IEC 11801:2017 OM2, EN 50173:2018 OM2



- 1 Core
- 2 Cladding
- 3 Coating

## DESCRIPTION

Bend insensitive fibre with enhanced macrobending features, suitable for medium transmission distances and medium transmission rates in the 850 nm and 1300 nm wavelengths (up to 1 GbE).

The geometrical, optical and mechanical specifications meet or exceed all relevant international standards.

## APPLICATION

In Premises cabling for Vertical/Riser cabling and for Fibre to the Desk (FTTD = horizontal cabling).

## OPTICAL PROPERTIES

### Transmission characteristics

Wavelength	[nm]	Product parameters		Standard spec.	
		850	1300	850	1300
Attenuation typical (cabled)	[dB/km]	2.5	0.5		
Attenuation maximum (cabled)	[dB/km]	2.7	0.7	3.5	1.5
OFL bandwidth per TIA/EIA 455-204 and IEC 60793-1-41	[MHz x km]	700	500	500	500
High-Performance EMB bandwidth as per TIA/EIA 455-220A and IEC 60793-1-49	[MHz x km]	850		not specified	
Refractive Index		1.480	1.479		

## TECHNICAL PROPERTIES

### Macrobending characteristics

Bending radius [mm]	No. of windings (turns)	Max. induced attenuation [dB]	
		850 nm	1300 nm
37.5	100	≤ 0.05	≤ 0.15
15	2	≤ 0.1	≤ 0.3
7.5	2	≤ 0.2	≤ 0.5

## MECHANICAL PROPERTIES

### Geometrical and mechanical characteristics

Numerical Aperture		0.200 +/- 0.015
Core Ø	[µm]	50.0 +/- 2.5
Maximum Core Non-Circularity	[%]	5
Cladding Ø	[µm]	125.0 +/- 1.0
Maximum Cladding Non-Circularity	[%]	1.0
Maximum Cladding/Core Concentricity Error	[µm]	1.5
Maximum Coating Concentricity Error	[µm]	12
Coating Ø	[µm]	245 +/- 5
Test load	[kpsi]	100

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### GENERAL PROPERTIES

#### Maximum Link Lengths

IEEE 802.3 series	Wave-length [nm]	Max. Link length Datwyler [m]	Link length Standard [m]	Explanation
1000 Base-SX IEEE 802.3z	850	750	550	High-performance laser Bandwidth EMB: Datwyler guarantees the EMB bandwidth through the calculated Effective Modal Bandwidth (mEMBc).
1000 Base-LX IEEE 802.3z	1300	550	550	This is a DMD based method to characterise laser bandwidth over the full range of standard compliant high-performance 850 nm VCSEL lasers.
10GBase-SR/SW IEEE 802.3ae	850	150	82	This measurement method is used to inspect the laser system for high data rates (up to 100 Gbit/s) in the 850 nm wavelength.
10GBase-LX4	1300	300	300	Link length is achieved via 1300nm „CWDM“ using 4 channels (lanes): Lane 0 = 1269,0 – 1282,4 nm Lane 1 = 1293,5 – 1306,9 nm Lane 2 = 1318,0 – 1331,4 nm Lane 3 = 1342,5 – 1355,9 nm

### STANDARDS

Fiber specifications ITU-T G.651.1, IEC 60793-2-10 Type A1-OM2b

### VERSIONS

Article No.