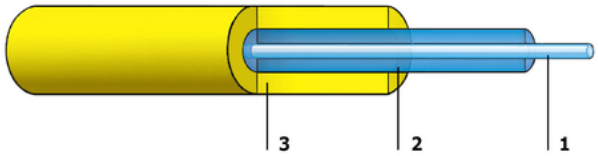
Multimode fibre, G50/125/250, OM4

bend optimized
IEC 60793-2-Type A1-OM4b, ISO/IEC 11801:2010 OM4, EN 50173:2011 OM4, TIA/EIA 492AAAD



1 Core
2 Cladding
3 Coating

DESCRIPTION

Bend insensitive fibre with enhanced macrobending features, particularly recommended for high-performance transmissions in the 850 nm wavelength like 10-GbE with duplex links or 40/100-GbE with high-speed parallel optic links.
The geometrical, optical and mechanical specifications meet or exceed all relevant international standards.

APPLICATION

In Premises cabling for LAN backbones (Campus and Vertical/Riser cabling) as well as in Data Centres.

OPTICAL PROPERTIES

Transmission characteristics

		Product parameters		Standard spec.	
Wavelength	**[nm]**	**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 as per TIA/EIA 455-204 and IEC 60793-1-41	[MHz x km]	3500	500	3500	500
High-Performance EMB bandwidth as per TIA/EIA 455-220A and IEC 60793-1-49	[MHz x km]	4700		4700	
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]	242 +/- 5
Test load	[kpsi]	100

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GENERAL PROPERTIES

Maximum link lenths

IEEE 802.3 series	Wave-length [nm]	Link length Datwyler [m]	Link length Standard [m]	Explanation
1000 Base-SX IEEE 802.3z	850	1100	800	High-performance laser bandwidth EMB: Datwyler guarantees the EMB bandwidth through the calculated Effective Modal Bandwidth (mEMBc). This is a DMD based method to characterise laser bandwidth over the full range of standard compliant high-performance 850 nm VCSEL lasers. 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-SR/SW IEEE 802.3ae	850	550	400	
40GBase-SR4 IEEE 802.3ba	850	170*	150	
100GBase-SR10 IEEE 802.3ba	850	170*	150	*The enhanced link length is a result of an enhanced dispersion value. The Insertion Loss (IL) of all connectors in the optical channel should not exceed 1.0 dB! (Standard: 1.5 dB)

STANDARDS

Fiber specifications	ITU-T G.651.1, IEC 60793-2-Type A1-OM4b, TIA/EIA 492AAAD

VERSIONS

Article No.