GOF SM Fiber, BendBright-XS®, G.657.A and B

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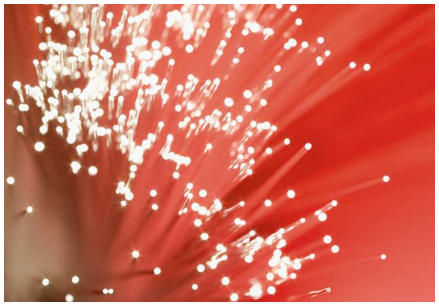

This enhanced low macro bending sensitive, low water peak fibre, gives unsurpassed bending performance. The preferred use of the BendBright-XS® fibre is in office installations, for patch cords, interconnection cables and for Fibre-to-the-Home networks. The BendBright-XS® offers reduced bending radii for many cables types. The fibre fulfils the new ITU G.657.A and B specification, as well as G.652.D.

Standards and norm

This fiber fulfils the requirements of:	• IEC 60793-2-50 Category B.1.3 • EN 60793-2-50: Class B1.3 • ITU Recommendation G.657.A and B • ITU Recommendation G.652.D The older ITU designations A, B and C are also fulfilled.
When cabled, the fibers fulfil the requirements for use in a number of cabling systems, among them is:	• EN 50 173-1: 2011, cat. OS1 + OS2 • ISO/IEC 24702: 2006, cat. OS1 + OS2 • ISO/IEC 11801: 2002, cat. OS1 + OS2 • IEEE 802.3 - 2002 incl. 802.3 Section Four
Testing methods are in accordance with the following standards:	• IEC 60793-1-XX: 2002 • EN 60793-1-XX: 2002

Material

Criteria	Value
Core	The core is germanium doped
Coating	The fiber coating is dual layer UV curable acrylate.

Optical properties

Property	Unit	Value	
Attenuation (of cable with fibers)	[dB/km]	In the range 1310 - 1625 nm: At 1550 nm:	≤ 0.40 ≤ 0.25
In homogeneity of OTDR trace for any two 1000 metre fiber lengths	[dB/km]	Max.:	0.1
Group index of refraction	–	At 1310 nm: At 1550 nm: At 1625 nm:	1.467 1.467 1.468

Dimensional and mechanical properties

Property	Unit	Value	Standard
Cladding diameter	[µm]	125.0 ± 0.7	IEC/EN 60793-1-20
Cladding non-circularity	[%]	≤ 0.7	IEC/EN 60793-1-20
Core (MFD) non-circularity	[%]	≤ 5	IEC/EN 60793-1-20
Core (MDF) -cladding concentricity error	[µm]	≤ 0.5	IEC/EN 60793-1-20
Primary coating diameter - uncoloured	[µm]	242 ± 7	IEC/EN 60793-1-21
Primary coating diameter - coloured	[µm]	250 ± 15	IEC/EN 60793-1-21
Primary coating non-circularity	[%]	≤ 5	IEC/EN 60793-1-21

Property	Unit	Value	Standard
Primary coating-cladding concentricity error	[µm]	≤ 10.0	IEC/EN 60793-1-21
Proof stress level	[GPa]	≥ 0.7 (≈ 1 %)	IEC/EN 60793-1-30
Strip force (peak)	[N]	$1.0 \leq F_{peak.strip} \leq 8.9$	IEC/EN 60793-1-32
Chromatic dispersion coefficient:			IEC/EN 60793-1-42
In the interval 1285 nm – 1330 nm	[ps/km × nm]	≤ |3|	
At 1550 nm	[ps/km × nm]	≤ 18.0	
At 1625nm	[ps/km × nm]	≤ 22.0	
Zero dispersion wavelength, λ_0	[nm]	1312 ± 12	
Zero dispersion slope	[ps/(nm^2 × km)]	≤ 0.092	
Cut-off wavelength λ_{cc}	[nm]	≤ 1260	IEC/EN 60793-1-44
Mode field diameter at 1310 nm	[µm]	8.9 ± 0.4	IEC/EN 60793-1-45
Mode field diameter at 1550 nm	[µm]	9.9 ± 0.5	
Macrobending loss at 1550 nm			IEC/EN 60793-1-47
10 turns on a radius = 15 mm mandrel	[dB]	≤ 0.03	
1 turn on a radius = 10 mm mandrel	[dB]	≤ 0.10	
1 turn on a radius = 7.5 mm mandrel	[dB]	≤ 0.50	
Polarisation mode dispersion (PMD) coefficient, cabled	[ps/√km]	≤ 0.1	IEC/EN 60793-1-48
PMD_Q Link Design Value	[ps/√km]	≤ 0.06	IEC/EN 60794-3

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