



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.A1, A2 and B2 specification, as well as G.652.D.

## Standards and norm

This fiber fulfils the requirements of:	<ul style="list-style-type: none"> <li>• IEC 60793-2-50 Category B.1.3</li> <li>• EN 60793-2-50: Class B1.3</li> <li>• ITU Recommendation G.657.A and B</li> <li>• ITU Recommendation G.652.D</li> </ul> <p>The older ITU designations A, B and C are also fulfilled.</p>
When cabled, the fibers fulfil the requirements for use in a number of cabling systems, among them is:	<ul style="list-style-type: none"> <li>• EN 50 173-1: 2011, cat. OS1 + OS2</li> <li>• ISO/IEC 24702: 2006, cat. OS1 + OS2</li> <li>• ISO/IEC 11801: 2002, cat. OS1 + OS2</li> <li>• IEEE 802.3 - 2002 incl. 802.3 Section Four</li> </ul>
Testing methods are in accordance with the following standards:	<ul style="list-style-type: none"> <li>• IEC 60793-1-XX: 2002</li> <li>• EN 60793-1-XX: 2002</li> </ul>

## 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: ≤ 0.40 At 1550 nm: ≤ 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: 1.467 At 1550 nm: 1.467 At 1625 nm: 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	[%]	≤ 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	[ $\mu\text{m}$ ]	$\leq 10$	IEC/EN 60793-1-21
Proof stress level	[GPa]	$\geq 0.7$ ( $\approx 1\%$ )	IEC/EN 60793-1-30
Strip force (peak)	[N]	$1.0 \leq F_{\text{peak.strip}} \leq 8.9$	IEC/EN 60793-1-32
Chromatic dispersion coefficient:			IEC/EN 60793-1-42
In the interval 1285 nm – 1330 nm	[ps/km $\times$ nm]	$\leq  3 $	
At 1550 nm	[ps/km $\times$ nm]	$\leq 18.0$	
At 1625nm	[ps/km $\times$ nm]	$\leq 22.0$	
Zero dispersion wavelength, $\lambda_0$	[nm]	$1312 \pm 12$	
Zero dispersion slope	[ps/(nm $\times$ km)]	$\leq 0.092$	
Cut-off wavelength $\lambda_{cc}$	[nm]	$\leq 1260$	IEC/EN 60793-1-44
Mode field diameter at 1310 nm	[ $\mu\text{m}$ ]	$8.9 \pm 0.4$	IEC/EN 60793-1-45
Mode field diameter at 1550 nm	[ $\mu\text{m}$ ]	$9.9 \pm 0.5$	
Macrobending loss at 1550 nm			IEC/EN 60793-1-47
10 turns on a radius = 15 mm mandrel	[dB]	$\leq 0.03$	
1 turn on a radius = 10 mm mandrel	[dB]	$\leq 0.10$	
1 turn on a radius = 7.5 mm mandrel	[dB]	$\leq 0.50$	
Polarisation mode dispersion (PMD) coefficient, cabled	[ps/ $\sqrt{\text{km}}$ ]	$\leq 0.1$	IEC/EN 60793-1-48
PMD <sub>o</sub> Link Design Value	[ps/ $\sqrt{\text{km}}$ ]	$\leq 0.06$	IEC/EN 60794-3