

C25: DrakaElite™ BendBright-XS Patch Cord fibre

Properties for BendBright-XS Patch Cords, using bend-insensitive, low water peak fibre; ITU G.657.A2 (and G.657.B2)

General and application

Draka BendBright-XS single-mode fibre combines three attractive features: excellent low macro-bending sensitivity, Draka's revolutionary new ColorLock^{XS} coating and tight glass geometry. Together they create the ideal performance for all patch cord, interconnect & jumper applications.

Standards and Norms

IEC 60793-2-50 Category B6_a and B6_b	EN 50 173-1:2007, cat. OS2
EN 60793-2-50: Class B6_a and B6_b	ISO/IEC 11801:2002, cat. OS1
ITU Recommendation G.657 designations A2 and B2	ISO/IEC 24702:2006 cat. OS2 and OS1
ITU Recommendation G.652 designations A, B, C and D	IEEE 802.3 – 2002 incl. 802.3ae

Cable attenuation

IEC 60793-1-40

Maximum attenuation value of cable in the interval 1310 nm – 1625 nm*	≤ 0.39 dB/km
Maximum attenuation value of cable at 1550 nm	≤ 0.25 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.1 dB/km

* Including H2-ageing according to IEC 60793-2-50, type B.1.3, @1383nm

Group index of refraction

IEC 60793-1-22

Group index of refraction at 1310 nm	1.467
Group index of refraction at 1550 nm	1.467
Group index of refraction at 1625 nm	1.468

Other properties

IEC 60793-1-xx

Cladding diameter	IEC/EN 60793-1-20	µm	125.0 ± 0.4
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.3
Core (MDF) -cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 0.3
Primary coating diameter - Colorlock ^{XS}	IEC/EN 60793-1-21	µm	242 ± 5
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 12
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Strip force (peak)	IEC/EN 60793-1-32	N	1.2 ≤ F _{peak.strip} ≤ 8.9
Static fatigue, aged n _s		-	>23
Chromatic dispersion coefficient: In the interval 1285 nm – 1330 nm At 1550 nm At 1625 nm	IEC/EN 60793-1-42	ps/km • nm ps/km • nm ps/km • nm	≤ 3 ≤ 18.0 ≤ 22.0
Zero dispersion wavelength, λ ₀		nm	1300 - 1324
Zero dispersion slope		ps/(nm ² • km)	≤ 0.092
Cut-off wavelength, cable	IEC/EN 60793-1-44	λ _{cc} nm	≤ 1260
Mode field diameter at 1310 nm	IEC/EN 60793-1-45	µm	8.5 – 9.3
Mode field diameter at 1550 nm		µm	9.4 - 10.4
Macro bending loss 10 turns on a mandrel R = 15 mm, @1550nm 10 turns on a mandrel R = 15 mm, @1625nm 1 turn on a mandrel R = 10 mm, @1550nm 1 turn on a mandrel R = 10 mm, @1625nm 1 turn on a mandrel R = 7.5 mm, @1550nm 1 turn on a mandrel R = 7.5 mm, @1625nm	IEC/EN 60793-1-47	dB	≤ 0.03 ≤ 0.1 ≤ 0.1 ≤ 0.2 ≤ 0.5 ≤ 1.0
Polarisation mode dispersion (PMD) coefficient, cabled	IEC/EN 60793-1-48	ps/√km	≤ 0.15
PMD _Q Link Design Value ***	IEC/EN 60794-3	ps/√km	≤ 0.08

*** according to IEC 60794-3, Ed3 (Q=0.01%)

All measurements are in accordance with ITU-T recommendation .G650.1 and G.650.2

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