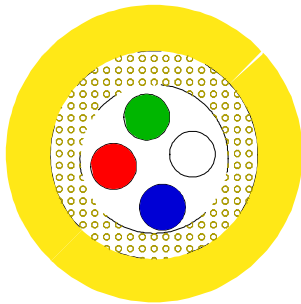




JN-SM-TRX with BendBrightXS

Cable Design

JETnet: buffered Fiber Optic Cable -dry core



JETnet

- not to scale -

- **Optical Fibre:** All fibres are grouped together in a easy strippable natural coating. See fibre characteristics
- **Strength members:** are applied in the cable.
- **Outer sheath:** consists of a high e-modulus thermoplastic material.

Application

Mini cables for installation in micro duct “guide” tube for FTTH networks.
Easy bendable with BendBright^{XS} fibre, this fibre can be bent down to small radius of 15 mm.

Configuration

No. of Fibers	Outer Sheath [mm]	Cable Weight [kg/km]	Pulling Force [N]
2	1.8 ± 0.2	3	150
3	1.8 ± 0.2	3	150
4	1.8 ± 0.2	3	150
6	2.0 ± 0.2	3.7	150

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Crush	IEC 60794-1-2-E3	1250 N / 100 mm,	$\Delta\alpha \leq 0.05$ dB
Impact	IEC 60794-1-2 E4	5 Nm	$\Delta\alpha \leq 0.05$ dB
Repeated Bending	IEC 60794-1-2-E6	R=15 mm	$\Delta\alpha \leq 0.10$ dB
Cable Bend	IEC 60794-1-2-E11	R=10 mm	$\Delta\alpha \leq 0.10$ dB



Temperature Range	Transportation & Storage:	- 30 to + 60°C	
	Installation:	- 10 to + 50°C	
	Operation:	- 20 to + 60°C	

All optical measurements at 1550 nm.






Identification and Packing

Fiber Colors 2xG657B

No.	1	2
Color	Red	Green
		

Fiber Colors 3xG657B

No.	1	2	3
Color	Red	Green	Blue
			

Fiber Colors 4xG657B

No.	1	2	3	4
Color	Red	Green	Blue	Violet
				

Fiber Colors 6xG657B

No.	1	2	3	4	5	6
Color	Red	Green	Blue	Violet	White	Yellow
						

Filler Elements Colors:

All filler elements are uncolored (natural).

Sheath Color:

The colour is orange for graded index (multi mode), fibres and yellow for single mode fibres.

Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows:

JETNET DRAKA COMTEQ TELECOM [year of manufacture] [fibre count] x [fibre type] [length marking]

Packing:

Wooden drums with protection.

Delivery Lengths:

Standard delivery lengths are 2 km.



C24: BendBright-XS® Single mode fibre

Enhanced bend insensitive, low water peak fibre; G.657.A and B

General and application

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 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.A and G.657.B	ISO/IEC 24702:2006 cat. OS2, also OS1 requirements are fulfilled
ITU Recommendation G.652.D – the older ITU designations A, B and C are also fulfilled.	IEEE 802.3 – 2002 incl. 802.3ae

Attenuation (of cable with fibres)

IEC 60793-1-40

1310 nm – 1625 nm	≤ 0.39 dB/km
1550 nm	≤ 0.25 dB/km
Inhomogeneity of OTDR trace for any two 1000 metre fibre lengths	Max. 0.1 dB/km

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 ± 0.7
Cladding non-circularity	IEC/EN 60793-1-20	%	≤ 0.7
Core (MDF) -cladding concentricity error	IEC/EN 60793-1-20	µm	≤ 0.5
Primary coating diameter - uncoloured	IEC/EN 60793-1-21	µm	242 ± 7
Primary coating diameter - coloured	IEC/EN 60793-1-21	µm	250 ± 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	≤ 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	µm	≤ 10.0
Proof stress level	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Strip force (peak)	IEC/EN 60793-1-32	N	1.0 ≤ F _{peak.strip} ≤ 8.9
Static fatigue, aged n _s		-	>23
Chromatic dispersion coefficient: In the interval 1285 nm – 1330 nm At 1550 nm	IEC/EN 60793-1-42	ps/km • nm ps/km • nm	≤ 3 ≤ 18.0
Zero dispersion wavelength, λ ₀		nm	1300 - 1324
Zero dispersion slope		ps/(nm ² • km)	≤ 0.092
Cut-off wavelength	IEC/EN 60793-1-44	λ _{cc} nm	≤ 1260
Mode field diameter at 1310 nm		µm	8.5 – 9.3
Mode field diameter at 1550 nm	IEC/EN 60793-1-45	µm	9.4 - 10.4
Macro bending loss at 1550 nm, 10 turns on a R = 15 mm mandrel 1 turn on a R = 10 mm mandrel 1 turn on a R = 7.5 mm mandrel	IEC/EN 60793-1-47	dB	≤ 0.03 ≤ 0.1 ≤ 0.5
Polarisation mode dispersion (PMD) coefficient, cabled	IEC/EN 60793-1-48	ps/√km	≤ 0.1
PMD ₀ Link Design Value	IEC/EN 60794-3	ps/√km	≤ 0.06