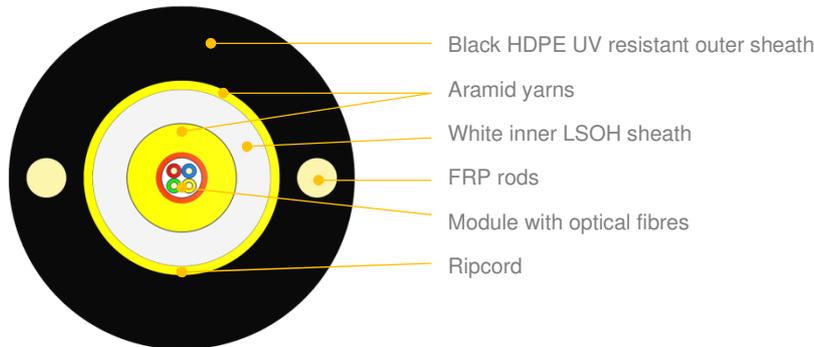


Type:	FTTH DOUBLE JACKET DROP CABLE	REV 0
Issued:	18/10/2021	KP
Project:	079-21	

FTTH indoor/outdoor double jacket drop cable with aramid yarns and FRP rods reinforcement



*schematic drawing, not to scale

APPLICATION

Drop cable for FTTH networks
Optical access cable with aramid yarns reinforcement
Direct buried construction
Fully dielectric cable
Last mile connection

DESIGN

Aramid yarns as strength and water absorbent elements
Easy strip buffer or modules with optical fibres
Embedded strength members (FRP)
Highly resistant outer jacket made of HDPE material
UV stabilized

VARIANTS

Variant	Quantity [pcs]				Ø nominal (±0,2) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N], $\epsilon_f=0,33\%$	Max static tension [N], $\epsilon_f=0,05\%$
	Fibres	Fibres per module	Total elements	Active tubes				
1x2F	2	2	1	1	6,0	30	800	250
1x4F	4	4	1	1	6,0	30	800	250

TECHNICAL AND ENVIRONMENTAL CABLE CHARACTERISTICS

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	Sustained load: 250N	Fibre strain: < 0.05%(during test) ≤ 0.05%(after test) Attenuation increment: $\Delta\alpha \leq 0.05\text{dB @ } 1550\text{nm}$ (after test) No significant damage to fibre unit
		Extended load: 800N	Fibre strain: < 0.33%(during test) ≤ 0.05%(after test) Attenuation increment: $\Delta\alpha \leq 0.05\text{dB @ } 1550\text{nm}$ (after test) No significant damage to fibre unit
Crush resistance	IEC60794-1-21 Method E3	2000 [N/10 cm]	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) $\Delta\alpha$ reversible @ 3000 N
Impact resistance	IEC60794-1-21 Method E4	Sample length: ~20m Impact energy: 5N.m Radius: 10 mm No. of impacts: 3 at different points 200mm apart	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) $\Delta\alpha$ reversible @ 7 N.m No jacket cracking and fibre breakage
Torsion	IEC60794-1-21 Method E7	Cable length to be twisted: 1m No. of cycles: 10 Twist angle: ±180° Load: 25N	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (throughout the test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	Mandrel radius: 60mm / 10 turns / 5 flexing cycles	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) No jacket cracking and fibre breakage
Water penetration	IEC 60794-1-22 Method F5B	Water head: 1m Sample length: 3m Time: 168 hrs	No water leakage
Tube kink	IEC 60794-1-21 Method G7	Kink radius: 30mm Number of samples: 3	No tube kink
Temperature cycling	IEC 60794-1-22 Method F1	+23°C → 40°C (T _{A2}) → +70°C (T _{B2}) → +23°C	For T _{A2} and T _{B2} $\Delta\alpha \leq 0,1\text{dB/km}$ Test wavelength: 1550nm

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OPTICAL FIBRE AND TIGHT TUBES COLOUR IDENTIFICATION

For optical fibres and tubes identification information please see **DSH_Colors_CODE_XXXX** document.

FIBRE PARAMETERS

For selected cabled optical fibres parameters please see **DSH_OFFP** document

MARKING

Marking is white. Print is made at 1 meter intervals using jet printer.

Example:

FREE N^o URGENCE 01 73 92 26 00 FIBRE LINE 2020 2 FO G.657 A2 „LENGTH MARKING” „BATCH NUMBER”
FREE N^o URGENCE 01 73 92 26 00 FIBRE LINE 2020 4 FO G.657 A2 „LENGTH MARKING” „BATCH NUMBER”

The accuracy of marking is $\pm 0.5\%$. Remarking is in accordance with Bellcore GR 20 and supersedes earlier markings. Occasional loss of marking is possible. Cables can be supplied with a range of single mode or multimode fibres and customized print.

PACKING

Cables will be shipped on disposable wooden or treated wooden drums. Both ends of the cable will be capped and accessible for testing. Rotation direction arrow will be marked on the drum together with identification information.

DELIVERY LENGTH

2000 – 8000 meters $\pm 5\%$, with possibility of supplying up to 5% of total contract quantity as short length cables which should be above 1000 meters long. Tolerance of 5 % of order quantity shall be allowed.

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