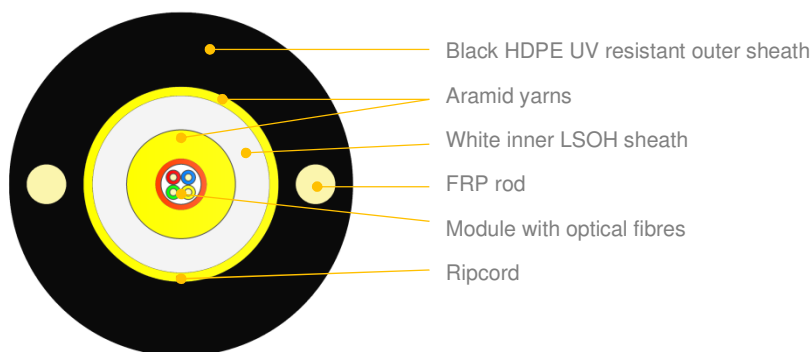


FTTH indoor/outdoor double jacket drop cable with aramid yarns and FRP rods reinforcement



*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:

Highly resistant, UV stabilized HDPE outer sheath
Aramid yarns as a strength and water absorbent elements
FRP rods embedded into outer sheath
Easy strip buffer or modules with optical fibres

DESIGN:

Variant	Quantity [pcs]				Ø nominal (±0,2) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N], $\epsilon_r \leq 0,6\%$
	Fibres	Fibres per module	Total elements	Active tubes			
1x2F	2	2	1	1	5,0	25	800

TECHNICAL AND ENVIRONMENTAL CABLE CHARACTERISTICS

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	Load: 800N Time: 10min	Fibre strain: $\leq 0,6\%$ (during test) $\leq 0,05\%$ (after test) Attenuation increment: $\Delta\alpha \leq 0,05\text{dB @ } 1550\text{nm}$ (after test) No significant damage to fibre unit
Abrasion resistance of cable markings	IEC60794-1-21 Method E2B Method 2	No. of cycles: 100 Load: 10N (PE sheath)	Legend shall remain legible
Crush resistance	IEC60794-1-21 Method E3	Sample length: ~20m Load: 2000 N / 10 cm / 15 minutes Plate size: 100 mm x 100mm Number of pts: 5 (100mm apart).	$\Delta\alpha \leq 0,1\text{dB @ } 1550\text{nm}$ (after test)
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) No jacket cracking and fibre breakage
Torsion	IEC60794-1-21 Method E7	Sample: 20m Cable length to be twisted: 1m No. of cycles: 10 Twist angle: $\pm 180^\circ$ Load: 25N	$\Delta\alpha \leq 0,1\text{dB @ } 1550\text{nm}$ (throughout the test) No jacket cracking and fibre breakage
Static bending	IEC60794-1-21 Method E11	Sample length: ~20m Mandrel radius: 50mm / 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 (except for micromodule)
Tube kink	IEC 60794-1-21 Method G7	Kink radius: 25mm 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

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

APPLICATION AND CABLE SPAN CHARACTERISTIC

Loading Conditions	Span	Installed Sag (2%)	Tension	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	100	2,0	800	4,2	4,0	1,5
NSC Medium	45	0,9	800	2,0	1,3	1,6
NSC Heavy	20	0,4	800	0,8	0,5	0,8

MARKING

The following print is applied at 1 meter intervals:

FREE No URGENCE 01 73 92 26 00 FIBRE LINE 2021 2 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 plywood 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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