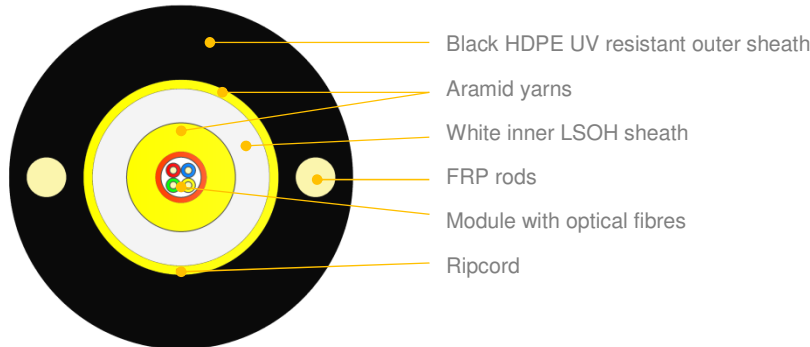


## FTTH indoor/outdoor double jacket drop cable with aramid yarns and FRP rods reinforcement VC-T60



\*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

### DESIGN:

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				
1x1F	1	1	1	1	6,0	30	800	250
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	<b>Fibre strain:</b> < 0.05%(during test) ≤ 0.05%(after test) <b>Attenuation increment:</b> $\Delta\alpha \leq 0.05\text{dB}$ @ 1550nm (after test) No significant damage to fibre unit
		Extended load: 800N	<b>Fibre strain:</b> < 0.33%(during test) ≤ 0.05%(after test) <b>Attenuation increment:</b> $\Delta\alpha \leq 0.05\text{dB}$ @ 1550nm (after test) No significant damage to fibre unit
Crush resistance	IEC60794-1-21 Method E3	2000 [N/10 cm]	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550nm (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	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550nm (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: $\pm 180^\circ$ Load: 25N	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550nm (throughout the test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	Mandrel radius: 60mm / 10 turns / 5 flexing cycles	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550nm (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 <sub>A2</sub> ) → +70°C (T <sub>B2</sub> ) → +23°C	For T <sub>A2</sub> and T <sub>B2</sub> $\Delta\alpha \leq 0,1\text{dB/km}$ Test wavelength: 1550nm

Type:	VC-T60	REV 1.2
Issued:	27/04/2016	PB
Modified:	20/07/2017	AM

## APPLICATION AND CABLE SPAN CHARACTERISTIC

Loading Conditions	Span	Sag (installed) (2%)	Tension under loading conditions	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
NSC Light	75	1,5	800	2,9	2,7	0,9
NSC Medium	37	0,74	800	1,5	1,0	1,2
NSC Heavy	20	0,4	800	0,8	0,4	0,7

## OPTICAL FIBRE AND TIGHT TUBES COLOUR IDENTIFICATION

For colour identification see **DSH\_Colors\_CODE\_XXXX** document.

## FIBRE PARAMETERS

For selected postproduction fibres parameters see **DSH\_OFFP** document.

## MARKING

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

Example:

FIBRAIN VC-T60 4F 5M G652D 1M4F "YEAR OF MANUFACTURE" "LASER SYMBOL" "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

Typical single cable length is 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.