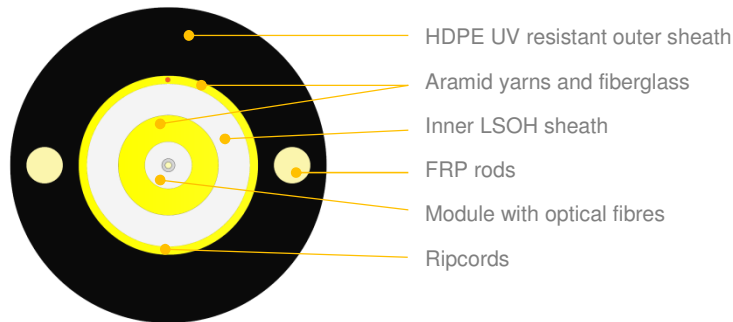


FTTH indoor/outdoor double jacket drop cable with aramid yarns and FRP rods reinforcement VC-T601-PE



*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
Suitable for aerial, façade and duct installation

DESIGN:

Aramid yarns as strength and water absorbent elements
Tight buffer or modules with optical fibres
ITU-T G.657A2 optical fibre(s)
Embedded strength members (FRP)
Highly resistant outer jacket made of HDPE material
UV stabilized
Flexible internal LSZH subcable

DESIGN:

Variant	Quantity [pcs]				Ø nominal [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N], $\epsilon_r \leq 0,4\%$	Max static tension [N], $\epsilon_r \leq 0,05\%$
	Fibres	Fibres per module	Total elements	Active tubes				
1F	1	1	1	1	6,0 MAX (outer diam.) 2,7 (subcable OD)	33	1200	300

TECHNICAL AND ENVIRONMENTAL CABLE CHARACTERISTICS

Temperature range:

Installation: -15... +55 [°C]
Operation: -30... +70 [°C]
Transport & Storage: -40... +70 [°C]

Bending radius:

Cable: 15xOD (dynamic)
30mm (static)
Subcable: 12xOD (dynamic)
12,5mm (static)

*OD = outer diameter

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	Sustained load: 300N (70N for subcable)	$\epsilon_f \leq 0.05\%$ (during test) $\epsilon_f \leq 0.05\%$ (after test) $\Delta\alpha \leq 0.05\text{dB}$ @ 1550nm (after test) No significant damage to fibre unit
		Extended load: 1200N (200N for subcable)	$\epsilon_f \leq 0.4\%$ (during test) $\epsilon_f \leq 0.05\%$ (after test) $\Delta\alpha \leq 0.05\text{dB}$ @ 1550nm (after test) No significant damage to fibre unit
Crush resistance	IEC60794-1-21 Method E3	500 [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	Impact energy: 1N.m	$\Delta\alpha \leq 0.1\text{dB}$ @ 1550nm (after test) $\Delta\alpha$ reversible @ 7 N.m No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	Mandrel radius: 30 mm / 10 turns	$\Delta\alpha \leq 0.1\text{dB}$ @ 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
Temperature cycling	IEC 60794-1-22 Method F1	+23°C → +25°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

(*) values for single-mode fibres, all optical measurements performed at 1550nm

Type:	VC-T601 PE	REV 1.4
Issued:	30/06/2016	PB
Modified:	22/12/2020	AM

APPLICATION AND CABLE SPAN CHARACTERISTIC

Loading conditions	Span	Installed sag (1%)	Tension under loading conditions	Total sag	Horizontal sag	Vertical sag
	[m]	[m]	[N]	[m]	[m]	[m]
Wind load: max 120 km/h Ice load: max 0mm	50	0,5	1000 @ 0,3%	1,7	1,6	0,1
Wind load: max 72 km/h Ice load: max 5mm	50	0,5	1000 @ 0,3%	1,6	1,5	0,7
	70	0,7	1200 @ 0,4%	2,5	2,3	1,0
Wind load: max 82 km/h Ice load: max 3mm	50	0,5	1000 @ 0,3%	1,7	1,6	0,4

OPTICAL FIBRE AND TIGHT TUBES COLOUR IDENTIFICATION

Identification colours see **DSH_Colors_CODE_XXXX**

FIBRE PARAMETERS

Fibres parameters characteristic see **DSH_OFFP**

MARKING

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

Example:

PE 1F SM G657A2 1T1F "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.

PACKAGING

Cables will be shipped on disposable plywood, 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. Regarding 500m cable length for packing purposes max flange diameter is 400mm.

DELIVERY LENGTH

500 – 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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