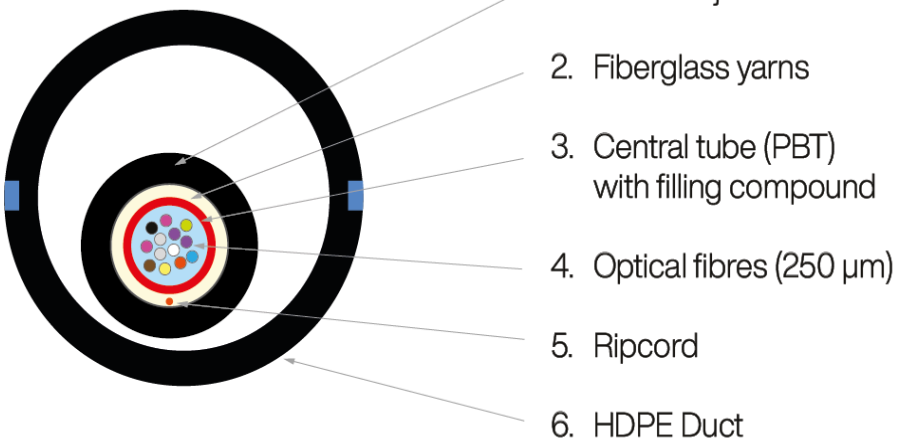
Preloaded HDPE Duct

with EXO-GI Loose Tube FIBRE Cable



Application

Outdoor use
Direct buried
FTTX networks
Distribution networks
Outdoor Plant Duct Installation

Cable design

Highly resistant, UV stabilized HDPE outer jacket
Central tube (PBT) with thixotropic filling compound
Fiberglass as a strain relief and water absorbent
Optical fibres
Polyester ripcord

Duct design

High mechanical resistance
Designed to protect optical cables from mechanical and environmental impact
Manufactured in black color in standard with parallel stripes on the outer surface

Cable Variants

Version	Quantity [pcs]		Ø nominal (±5%)	Nominal weight (±5%)	Max allowed tension	Max static tension
	Fibres	Fibres per tube	[mm]	[kg/km]	[N] / ε≤0,6%	[N] / ε≤0,2%
1T x 6F	6	6	6,1	36	2700	500
1T x 12F	12	12	6,1	36		
1T x 16F	16	16	6,1	38		
1T x 24F	24	24	6,1	38		

*Other fibre counts available on demand

Duct Variants

Version	Outer Ø nominal (±0.3mm)	Nominal wall thickness (±0.5mm)	Circumferential stiffness SN	Compression resistance	Additional features
	[mm]	[mm]	[kN/m2]	[N]	
RHDPE 32/2,6	32	2.6	32	450	
RHDPE 32/2,9	32	2.9	64	750	
RHDPE 32/2,6 UV	32	2.6	32	450	UV resistant
RHDPE 32/2,9 UV	32	2.9	64	750	UV resistant

Technical and environmental cable characteristics

Test	Standard	Conditions	Requirements*
Tensile strength	IEC60794-1-21 Method E1	**Short term:** 2700N	Fibre strain: ≤0,6%, Δα reversible
		Long term: 500N	Fibre strain: ≤0,2%, Δα≤0,05 dB/km
Crush resistance	IEC60794-1-21 Method E3	**Load:** 1500 N / 10 cm / 5 minutes	Δα ≤ 0.1dB No jacket cracking and fibre breakage

Torsion	IEC60794-1-21 Method E7	**Cable length to be twisted:** 2m **No. of cycles:** 5 **Twist angle:** starting position to -180° to starting position to +180°, and back (360° total) **Load:** 100N		Δα≤0.1dB No jacket cracking and fibre breakage
Bending	IEC 60794–1–21-E11	**Radius**: 15 x OD		Δα≤0.1dB No jacket cracking and fibre breakage
Water penetration	IEC 60794-1-22 Method F5A, F5B	**Water head**: 1m **Sample length:** 3m **Time:** 24 hrs		No water leakage
Temperature range	IEC60794-1-22 Method F1	**Installation:**	-5.... +55 [°C]	Δα≤0,1 dB/km
		Operation:	-20… +70 [°C]	
		Transport & Storage:	-20… +70 [°C]	

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

DUCT CHARACTERISTICS

Material	HDPE – High Density Polyethylene
Density	> 940 kg/m3
Operating temperature	-25… 90°C
Ovality	≤ 6%
Color	black
Applicable Standards:	PN-EN 61386-24

OPTICAL FIBRE AND LOOSE TUBES COLOUR IDENTIFICATION

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

FIBRE PARAMETERS

For selected post-production optical fibres parameters please see **DSH_OFP** document.

CABLE MARKING

The following print (laser or other suitable printing method) is applied at 1-meter intervals.

- Standard code (Product type, fibre type, fibre count)
- Year of manufacture: xxxx
- Length marking in meters
- Cable ID / Drum No

Example: EXO-GI PE 12F SM G657A1 1T12F "YEAR OF MANUFACTURE" "LASER SYMBOL" "LENGTH MARKING" "BATCH NUMBER"

The accuracy of marking is ± 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

Production typical lengths: 3000m
Packaging: wooden reels: 2200/1000/1100-IPPC, secured with stretch foil