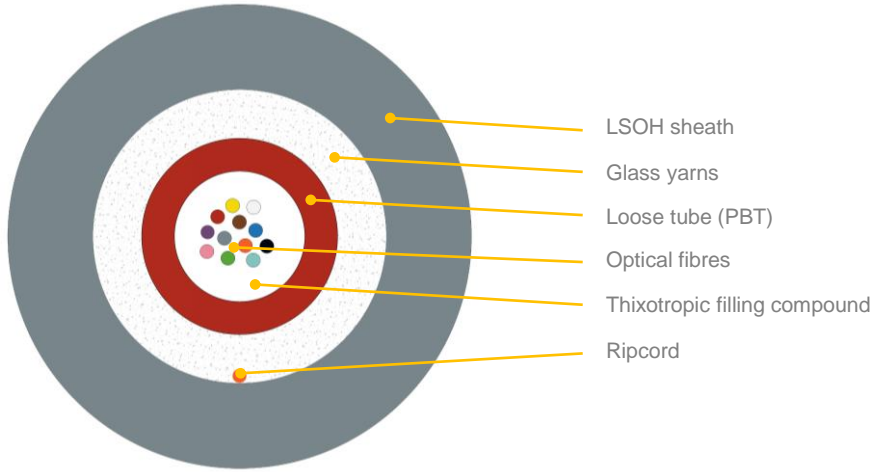


Universal Single LSOH Jacket Central Loose Tube Cable with Fiberglass Reinforcement – EXO-FU



*schematic drawing, not to scale

DESIGN:

Central loose tubes (PBT Ø 3.0mm) with thixotropic filling compound and ITU-T G.652D optical fibres
 Glass yarns as strain relief and water absorbent
 Polyester ripcord
 UV stabilized green LSOH sheath

Variant	Quantity [pcs]				Ø nominal (-0,3/+0,3) [mm]	Nominal weight (±10%) [kg/km]	Max allowed tension [N] / ε=0,4%	Max static tension [N] / ε=0,25%
	Fibres	Fibres per tube	Total elements	Active tubes				
1T x 14-24F	14-24	14-24	1	1	6,8	49	1100	550

OPTICAL FIBRES AND LOOSE TUBES COLOUR IDENTIFICATION

Fibres and tubes identification information see **DSH_Colors_CODE_XXXX** document.

FIBRES PARAMETERS

Optical fibres parameters see **DSH_OFP** document.

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Temperature range:

Installation: -10... +50 [°C]
 Operation: -20... +60 [°C]
 Transport & Storage: -40... +70 [°C]

Cable bending radius:

12 x cable diameter (during operation)
 20 x cable diameter (during installation)

Type:	EXO-FU	REV: 0
Issued:	04/04/2016	PB
Modified:		

Test	Specification	Method	Requirements
Tensile strength	IEC60794-1-21 Method E1	Sustained load: 550N	Attenuation increment: $\Delta\alpha \leq 0.05\text{dB @ } 1550\text{nm}$ (after test) No significant damage to fibre unit
		Extended load: 1100N	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	Load: 1600 N / 10 cm / 5 minutes	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) No jacket cracking and fibre breakage
Impact resistance	IEC60794-1-21 Method E4	Impact energy: 10J	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) 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 $+180^\circ$, and back (360° total) Load: 100N	$\Delta\alpha \leq 0.1\text{dB @ } 1550\text{nm}$ (after test) No jacket cracking and fibre breakage
Bending	IEC60794-1-21 Method E11	Mandrel radius: 12 x OD / 5 turns / 3 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 F5A, F5B	Water head: 1m Sample length: 3m Time: 24 hrs	No water leakage

MARKING

The following print (white or black / ink jet) is applied at 1-meter intervals:

“MANUFACTURER’S NAME” “NUMBER OF OPTICAL FIBRES” “FIBRE TYPE” “YEAR OF MANUFACTURE” “LASER SYMBOL” “LENGTH MARKING” “BATCH NUMBER”

Example: FIBRAIN EXO-FU 12F SM G652D 1T12F 2015 “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

2000 – 8000 meters $+1\%$ / -2% , 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.

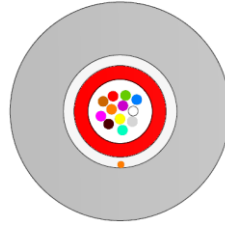
STANDARD OUTER JACKET COLOURS:



PE Black RAL 9005



LSOH Grey RAL 7022



LSOH Light Grey RAL 7037

OUTER JACKET COLOUR OPTIONS*:

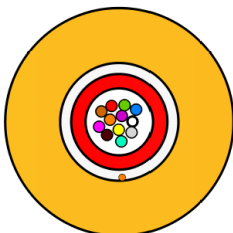
SM G.652D

SM G657A1, A2, A3

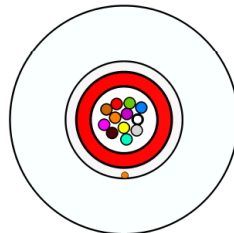
MM 50/125 OM2

MM 50/125 OM3

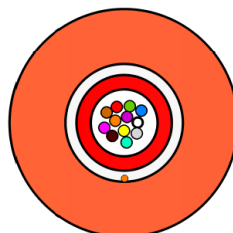
MM 50/125 OM4



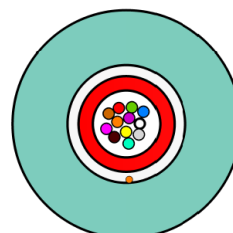
RAL 1021



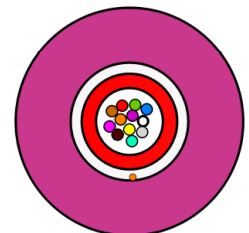
RAL 9010



RAL 2003



RAL 6027



RAL 4003