



LTC-S RP

48x SM G.657.A1 (4x12)

Article number: 77752

Date: 28-03-2019

The ACE outdoor optical fibre cables are available from low fibre up to very high fibre count, in all types like loose tube cable (LTC), loose tube mini cable (LTMC) and central tube cable (CTC). We offer solutions for sub soiled duct systems, direct burial cables and a full range of self-supporting aerial cables. Besides the standard cables we can fulfil all requests for various environmental situations like rodent protection and steel wire armoured.



Product characteristics

Optical fibre standard	ITU-T G.657.A1
Marking	ACE - TKF LTC-S RP 48x SM G.657.A1 (4x12) A-DQ(ZN)B2Y 77752 {Batch} {Year} {Length}
Weight (kg)	0.060
Colour outer sheath	Black
Material outer sheath	HDPE
Optical element	Loose tube, gel filled
Number of fibers per optical element	12
Cable metal free	Yes
Number of cores	4
Number of layers	1 Layer
Outer diameter approx.	8,6 mm
Number of fibers	48
Type of strain relief	FRP + E-glass
Strip method	1 Rip cord
Max. outer diameter	9,0 mm



Fibre type	Single mode 9/125
Cable type	LTC
Strain relief	Yes
Outer sheath thickness	1,0 mm

Application

Euro fire class according to EN 13501-6	Fca
Blow in	Yes
Application	Outside
Test procedures	EN IEC 60794-1-2

Mechanical specification

Bending radius during installation	170 mm
Bending radius after installation	130 mm
Impact strength	10 J
Tensile load short term (Tm)	3500 N
Tensile load Long Term (TI)	1500 N
Striking surface radius	300 mm
Crush resistance acc. meth.E3A	1500 N/dm
Torsion resistance	360 °/m

Optical specification

Attenuation @ 1310 nm	0,35 dB/km
Attenuation @ 1550 nm	0,22 dB/km
Attenuation @ 1625 nm	0,25 dB/km

Environmental specification

Operational temperature range Ta1 - Tb1	-30/70 °C
Operational temperature range Ta2 - Tb2	-40/70 °C
Max. attenuation increase during Ta2 - Tb2	0,15 dB
Max. attenuation increase during Ta1 - Tb1	0,05 dB
Longitudinal watertight construction	Super Absorbing Polymer



UV-protection	ISO 4892/2
Transportation and storage temperature	-40/70 °C
Longitudinal water blocking	Yes
UV resistant	Yes
Installation temperature	-15/55 °C
With rodent protection	Yes

Other specification

Standardization	EN IEC 60794-3-10
Halogen free (acc. EN 60754-1/2)	Yes

Logistical specifications

Unit	meter
Default packaging	H X 12000/600



Fibre specification G.657.A1

ACE-DS-OT-VSP-SM G657A1-v02-e

date : 25-01-2018

Technical product information

Product characteristics - optical fibers

Fibre

Type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding bending loss insensitive single mode fibre 9/125 µm Full compatible with G.652.D fibre Optical and geometrical properties exceed ITU-recommendations G.652.D and G.657.A1
Standard	IEC-60793-2-50, B6_a1
Standard	ITU-T G.657.A1

Characteristics

Parameter	Properties	Unit
Mode field diameter: 1310 nm	9.0 ± 0.3	µm
Mode field diameter: 1550 nm	10.2 ± 0.4	µm
Core non-circularity	max. 6	%
Core/cladding concentricity error	max. 0.4	µm
Cladding diameter	125.0 ± 0.5	µm
Cladding non-circularity	max. 0.7	%
Coating diameter	242 ± 5	µm
Coating/cladding concentricity error	max. 8	µm
Temperature sensitivity: -60 to +85 °C	max. 0.05	dB/km
Bending sensitivity - 100 turns around Ø50 mm - 1550 mm	max. 0.05	dB
Bending sensitivity - 100 turns around Ø60 mm - 1625 mm	max. 0.1	dB
Bending sensitivity - 10 turns around Ø30 mm - 1550 mm	max. 0.3	dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 mm	max. 0.75	dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 mm	max. 1.5	dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 mm	max. 0.2	dB
Proof test level	min. 0.70	GPa
Fibre curl	min. 4	m
Cable cut-off wavelength	max. 1260	nm
Zero-dispersion wavelength	1300 – 1324	nm
Zero-dispersion slope	max. 0.090	ps/nm ² ·km
Chromatic dispersion: 1285 nm – 1330 nm	max. 3.2	ps/nm·km
Chromatic dispersion: 1550 nm	max. 17	ps/nm·km
Chromatic dispersion: 1625 nm	max. 21	ps/nm·km
Polarisation mode dispersion: max. individual fibre	max. 0.1	ps/nm·km
PMD ₀	max. 0.06	ps/√km
Max. attenuation at 1383 nm (α ₁₃₈₃) [note a]	< max. α ₁₃₁₀	-
Effective group core refractive index: 1310 nm	1.4671	-
Effective group core refractive index: 1550 nm	1.4675	-
Effective group core refractive index: 1625 nm	1.4680	-

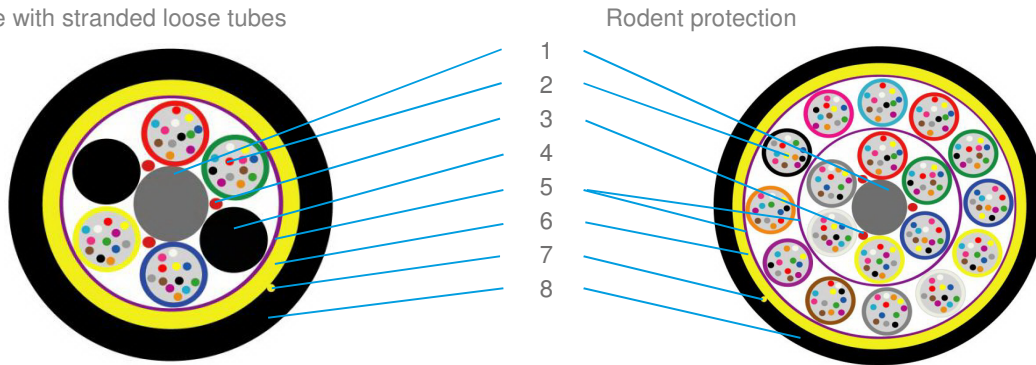
note a: after hydrogen ageing

TECHNICAL PRODUCT INFORMATION

Cable construction and colour code

LTC-S RP

FO cable with stranded loose tubes



Description

- 1 Central element (FRP), optional with overshooth
- 2 Loose tube with optical fibres (2, 4, 6, 8, 12 or 24 fibres per tube)
- 3 Waterblocking yarns or tape
- 4 Filler
- 5 Waterblocking tape
- 6 Glass yarn strength members (rodent protection)
- 7 Ripcord (optional)
- 8 Outer sheath (PE)

Standard colours

Fibres		Tubes					
Group 1	Group 2	Layer 1		Layer 2		Layer 3	
1 Red	13 Red +t	1 Red	1 Red	1 Red	1 Red	1 Red	1 Red
2 Green	14 Green +t	2 Green	2 Green	2 Green	2 Green	2 Green	2 Green
3 Blue	15 Blue +t	3 Blue	3 Blue	3 Blue	3 Blue	3 Blue	3 Blue
4 Yellow	16 Yellow +t	4 Yellow	4 Yellow	4 Yellow	4 Yellow	4 Yellow	4 Yellow
5 White	17 White +t	5 White	5 White	5 White	5 White	5 White	5 White
6 Grey	18 Grey +t	6 Grey	6 Grey	6 Grey	6 Grey	6 Grey	6 Grey
7 Brown	19 Brown +t	7 Brown	7 Brown	7 Brown	7 Brown	7 Brown	7 Brown
8 Violet	20 Violet +t	8 Violet	8 Violet	8 Violet	8 Violet	8 Violet	8 Violet
9 Turquoise	21 Turquoise +t	9 Turquoise	9 Turquoise	9 Turquoise	9 Turquoise	9 Turquoise	9 Turquoise
10 Black	22 Natural +t	10 Black	10 Black	10 Black	10 Black	10 Black	10 Black
11 Orange	23 Orange +t	11 Orange	11 Orange	11 Orange	11 Orange	11 Orange	11 Orange
12 Pink	24 Pink +t	12 Pink	12 Pink	12 Pink	12 Pink	12 Pink	12 Pink
				13 Red	13 Red	13 Red	13 Red
				14 Green	14 Green	14 Green	14 Green
				15 Blue	15 Blue	15 Blue	15 Blue
				16 Yellow	16 Yellow	16 Yellow	16 Yellow
					17 White	17 White	17 White
					18 Grey	18 Grey	18 Grey

note +t: indicates a black tracer