

## LTMC



### LTMC - Loose Tube Mini Cable.

Loose Tube Mini Cable, non-metallic, longitudinal water-protected, with extra reduced cable-diameter by application of low bend radius, no waterpeak G.657.A1 200µm fibres. This cable is perfectly suitable for Access or FTTx applications, where high fibre-count cables in smallest tube-diameter are needed.

Installation: blowing into miniducts

Commercial information		Properties	Unit
Product group		Fibre optic cable	
Series		Fibre optic cable Single mode	
Type		LTMC	
Description		192x SM G.657.A1 200um (8x24)	
Net weight		62	kg/Km
Marking	ACE - TKF LTMC 192x SM G.657.A1 (8x24) A-DQ(ZN)2Y 74882	{Batch} {Year} {Length}	

Article number / standard length	EAN number	Properties	Unit
74882	8713182146658	Drum à 1	m

Construction		Properties	Unit
Cable type		LTMC	
Fibre type		Single mode	
Optical fibre standard		ITU-T G.657.A1 200um	
Number of fibres		192	
Number of fibres per optical element		24	
Number of cores		8	
Optical element		Loose tube, gel filled	
Cable metal free		Yes	
Number of layers		1 Layer	
Strip method		1 Rip cord	
Strain relief		Yes	
Type of strain relief		FRP	
Material outer sheath		HDPE	
Colour outer sheath		Black	
Outer sheath thickness		0.5	mm
Outer diameter approx.		8.1	mm



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Characteristics for use	Properties	Unit
Application	Outside	
Blow in	Yes	

Technical characteristics	Properties	Unit
Standardization	IEC 60794-5-10	
Test procedures	IEC 60794-1-2	
Longitudinal water blocking	Yes	
Longitudinal watertight construction	Super Absorbing Polymer	
Installation temperature	-15 / 50	°C
Operation temperature range	-30 / 70	°C
UV resistant	Yes	

Mechanical characteristics	Properties	Unit
Tensile load short term (Tm)	3000	N
Tensile load Long Term (Tl)	1000	N
Bending radius after installation	120	mm
Bending radius during installation	160	mm
Crush resistance acc. meth.E3A	1000	N/dm
Impact strength	2	J
Striking surface radius	10	mm
Torsion resistance	360	°/m

Optical characteristics	Properties	Unit
Attenuation @ 1310 nm	0.35	dB/km
Attenuation @ 1550 nm	0.22	dB/km
Attenuation @ 1625 nm	0.25	dB/km

Other characteristics/features	Properties	Unit
Halogen free (acc. EN 50267-2-2)	Yes	

## Product Characteristics - Optical fibres

Fibre:			
	type of fibre	hydrogen passivated, dispersion unshifted, matched cladding bending loss insensitive singlemode fibre 9/125µm	
		Fully compatible with G.652.D fibre	
		Reduced coating diameter	
	standard		
	standard	ITU-T G.657.A1	

Characteristics:	Properties	Unit
Mode field diameter; 1310nm	9.0 ± 0.4	µm
Mode field diameter; 1550nm	10.2 ± 0.5	µm
Core non-circularity	max 6	%
Core/Cladding concentricity error	max 0.5	µm
Cladding diameter	125.0 ± 0.5	µm
Cladding non-circularity	max 0.8	%
Coating diameter, uncoloured	190 ± 5	µm
Coating diameter, coloured	198 ± 6	µm
Coating/Cladding concentricity error	max 8	µm
Temperature sensitivity; -60°C to +85°C	max 0.05	dB/km
Bending sensitivity - 100 turns around Ø50mm - 1550nm	max 0.05	dB
Bending sensitivity - 100 turns around Ø60mm - 1625nm	max 0.05	dB
Bending sensitivity - 10 turns around Ø30mm - 1550nm	max 0.25	dB
Bending sensitivity - 10 turns around Ø30mm - 1625nm	max 1.0	dB
Bending sensitivity - 1 turn around Ø20mm - 1550nm	max 0.75	dB
Bending sensitivity - 1 turn around Ø20mm - 1625nm	max 1.5	dB
Proof test level	min 0.69	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 <sup>2</sup> .km
Chromatic dispersion; 1285nm - 1330 nm	max  3.2	ps/nm.km
Chromatic dispersion; 1550nm	max 17	ps/nm.km
Chromatic dispersion; 1625nm	max 21	ps/nm.km
Polarisation Mode Dispersion; maximum individual fibre	max 0.1	ps/√km
PMD <sub>Q</sub>	max 0.08	ps/√km
Max attenuation at 1383nm (α <sub>1383</sub> ) [note a]	< max α <sub>1310</sub>	
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