Syskern Ed 1.0

KFOxxxMTZHB2

Multi loose tube, non metalic armored, B2ca LSZH Jacket Fiber optic cable

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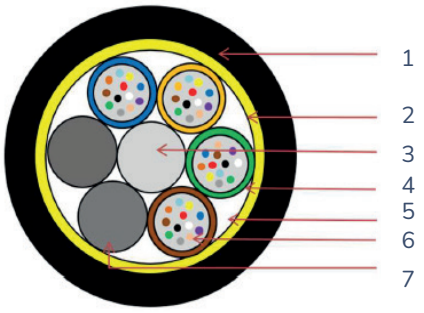

UNIK

- Complies with CPR level B2ca
- Very good waterproofing and UV resistance
- High rodent resistancy

1. Sheat (LSZH)
2. Water blocking tape
3. FRP
4. Buffer tube (PBT)
5. WB glass yarn
6. Optical fibers
7. Dummy tube

THE PURPOSE

Unikkern's Multi Loose Tube, Non-Metallic Armored Fiber Optic Cable with a B2ca-rated LSZH jacket is engineered for versatility and high performance across various demanding applications. Ideal for inter-building voice or data communication networks, FTTC and FTTB cabling, and campus infrastructures, this cable ensures reliable connectivity.

Its robust construction allows for installation in ducts, conduits, and direct burial underground, making it suitable for outside plant deployments and primary and secondary distribution in WANs. Designed to withstand harsh environments requiring heavy-duty protection, it facilitates the interconnection of distribution boxes, frames, and customer-side panels, providing a dependable solution for telecommunication data trunk systems.

COMPLIANCE

Standard cable

IEC 60794-1&2
EN 50575
EN 60332-1-2
IEC 60332-3-24
EN 60754-2 / EN 61034
CPR Class B2ca,s1a,d0,a1

Applications

From 1G to 400G

THE STRUCTURE

Fiber type : G.652-D,G.657 A1,G.657 A2,OM1,OM2,OM3,OM4,OM5
fiber count : 12-144
Jacket color : Black RAL9005
Jacket UV resistance: UV resistance
Jacket : LSZH
Marking : UNIKKERN OPTICAL FIBER xx FO ZZZ x/125 MULTI LOOSE TUBE NON ARMORED B2ca Certified SGS 21WWYY xxxxxxM

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TECHNICALITIES

									IEC 60794-1-2 Test method
Number of fibers	12	24	36	48	60	72	96	144	
Number of tubes	1	2	3	4	5	6	8	12	
Number of dummy tubes	5	4	3	2	1	0	0	0	
OD Tube Max. (mm)	2.3								
OD Tube Nom. (mm)	2.1								
OD Tube Min. (mm)	1.9								
OD cable Max. (mm)	10.7						12.0	16.5	
OD cable Nom. (mm)	10.2						11.5	16.0	
OD cable Min. (mm)	9.7						11.0	15.5	
Max. Jacket Thickness (mm)	1.8								
Min. Jacket Thickness (mm)	1.5								
Minimum Bending radius	20 x D								E11
Max. Operating Load (N)	1600								
Max. Installation Pulling Load (N)	2700								
Crush (N/100mm)	2000								E3
Twist (torsion)	5 turn of 180° on 1m sample, both ways.								E7
Storage temperature range	-40°C to +70°C								F1
Operating temperature range	-40°C to +70°C								F1
Core fluid penetration	3m sample, 1m head for 24 hours								F5
Nom. Weight (Kg/Km)	110						135	210	

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PURCHASE INFO

Nb of Fibre	Nb of Tube	Perf	References	Diameter (nom)	Weight (Kg)	Crush resistance (N/100mm)	Tensile strength(N)	Packaging
12	1	OS2	KFO12OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
24	2	OS2	KFO24OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
36	3	OS2	KFO36OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
48	4	OS2	KFO48OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
60	5	OS2	KFO60OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
72	6	OS2	KFO72OS2MTZHB2	10.7mm	110	2000 long term	1600 long term 2700 Short term	D4000M
96	8	OS2	KFO96OS2MTZHB2	11.5mm	135	2000 long term	1600 long term 2700 Short term	D4000M
144	12	OS2	KFO144OS2MTZHB2	16.0mm	210	2000 long term	1600 long term 2700 Short term	D4000M

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TECHNICALITIES

OS2 Performances (G652D)

MODE FIELD DIAMETER @1310NM	9.2±0.4µM
MODE FIELD DIAMETER @1550NM	10.4±0.5µM
CLADDING DIAMETER	125.0± 1µM
CORE CONCENTRICITY ERROR	≤0.6µM
CLADDING NON-CONCIRCULARITY	≤ 1.0%
COATING DIAMETER	245±10µM (BEFORE COLORED)
	250±15µM (COLORED)
COATING/CLADDING CONCENTRICITY ERROR	≤12µM
CABLE CUTOFF WAVELENGTH	≤1260 nM
POINT DISCONTINUITY	≤0.05DB
ATTENUATION COEFFICIENT @ 1310 NM	≤0.36DB/KM
@ 1383 NM	≤0.36DB/KM
@ 1550 NM	≤0.22DB/KM
@ 1625NM	≤0.24DB/KM
MACRO-BEND INDUCED ATTENUATION	
100 TURNS, 30MM RADIUS @1550N/1625M	≤0.05DB
PMD	
MAX. INDIVIDUAL FIBER	≤0.2 PS/KM1/2
PMDQ	≤0.1 PS/KM1/2
ZERO-DISPERSION WAVELENGTH	1300 ~ 1324 NM
ZERO-DISPERSION SLOPE	≤ 0.092 PS/(NM^2.KM)
CHROMATIC DISPERSION COEFFICIENT	
@ 1288-1339 NM	≤3.5PS/(NM. KM)
@ 1271-1360NM	≤5.3PS/(NM. KM)
@ 1550 NM	≤18PS/(NM. KM)
@ 1625 NM	≤22PS/(NM. KM)
PROOF TEST LEVEL	100 KPSI (0.69 GPA), 1% STRAIN
COATING STRIP FORCE(PEAK VALUE)	1.3~8.9N
FIBER CURL (RADIUS)	^{3} 4 M

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TECHNICALITIES

MULTIMODE FIBERS common Performances

CORE DIAMETER	50 ± 2.5 µM
CORE NON-CIRCULARITY	≤ 5%
CORE-CLADDING CONCENTRICITY ERROR	≤ 1.5 µM
CLADDING DIAMETER	125 ± 1.0 µM
CLADDING NON-CIRCULARITY	≤ 1%
COATING DIAMETER	242 ± 7 µM
COATING NON-CIRCULARITY	≤ 5%
COATING-CLADDING CONCENTRICITY ERROR	≤ 10%
ATTENUATION COEFFICIENT AT 850 NM	≤ 2.4 DB/KM
ATTENUATION COEFFICIENT AT 1300 NM	≤ 0.6 DB/KM
MACROBENDING LOSS MANDREL RADIUS = 7.5 MM, 2 TURNS MANDREL RADIUS = 15 MM, 2 TURNS MANDREL RADIUS = 37.5 MM, 100 TURNS	 ≤ 0.2 / ≤ 0.5 DB ≤ 0.1 / ≤ 0.3 DB ≤ 0.5 / ≤ 0.5 DB
PEAK COATING STRIP FORCE, UNAGED AND AGED	1.3 ≤ FPEAK-STRIP ≤ 8.9 N

OM3 Specific performances

BANDWIDTH (OFL) OVERFILLED MODAL BANDWIDTH AT 850 NM OVERFILLED MODAL BANDWIDTH AT 1300 NM	 ≥ 1500 MHZ.KM ≥ 500 MHZ. KM
BANDWIDTH (EMB) EFFECTIVE MODAL BANDWIDTH AT 850 NM	≥ 2000 MHZ.KM

OM4 Specific performances

BANDWIDTH (OFL) OVERFILLED MODAL BANDWIDTH AT 850 NM OVERFILLED MODAL BANDWIDTH AT 1300 NM	 ≥ 3500 MHZ.KM ≥ 500 MHZ. KM
BANDWIDTH (EMB) EFFECTIVE MODAL BANDWIDTH AT 850 NM	≥ 4700 MHZ.KM