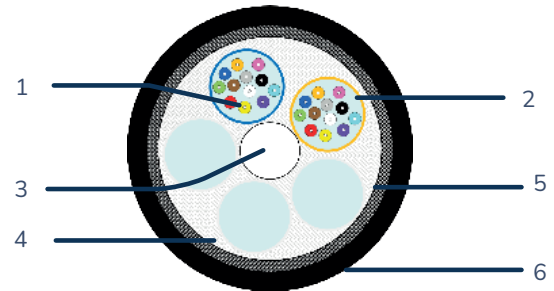


KFOxxxxMTA

HDPE outdoor armored multi-tube fiber optic cable



UNIK ✓

- ✓ Complies with ISO 11801 and IEC 60794
- ✓ Very good waterproofing and UV resistance
- ✓ The steel armor guarantees the antirodent property

- 1. Optical fiber 250 microns
- 2. PBT tube filled with thixotropic gel
- 3. Central reinforcement and jamming
- 4. Fiberglass protection
- 5. Corrugated steel armor
- 6. Black PEHD jacket RAL 9005

THE PURPOSE

Our fiber optic cable offers a high-performance solution for data transmission, while offering enhanced protection against rodents, water penetration and UV rays. This cable contains up to 144 optical fibers, each protected by color-coded PBT tubing for easy identification. The tubes are filled with a thixotropic water-blocking gel, ensuring optimal protection against humidity. To reinforce the structure, the tubes are assembled in SZ around a central support with the addition of filler if necessary, fiberglass filaments are added, and a dry swelling material fills the gaps to prevent any penetration of water. The corrugated steel strip, which protects against physical damage, is followed by a UV-resistant HDPE outer jacket, for long-term durability.

COMPLIANCE

Standard cable	System	Applications
IEC 601793 B1.3 Singlemode	ISO/IEC 11801-1:2017 OS2, OM3	From 1G to 400G
IEC 601793-2 A1 Multimode	or OM4	

THE STRUCTURE

Optical fiber : 9/125 OS2 / G652D - 50/125 OM3/OM4

Tube : Made of PBT and filled with thixotropic gel, it can contain up to 14 optical fibers - 2-12FO :2.1mm

Fiberglass protection : Waterblocking fiberglass yarns

Assembly: SZ around a central carrier with swelling tape

Armor : Corrugated steel

Jacket : Black PEHD RAL9005

Marking : UNIKKERN OPTICAL FIBER xx FO ZZZ x/125 MULTITUBE ARMORED Fca Certified SGS 21WWYY
xxxxxxM



www.unikkern.com

This confidential Syskern datasheet cannot be altered or reproduced without written permission. Its specifications are subject to change without notice.

Cette fiche technique confidentielle de Syskern ne peut être modifiée ou reproduite sans permission écrite. Ses spécifications peuvent changer sans préavis








KFOxxxxMTA

HDPE outdoor armored multi-tube fiber optic cable















THE STRUCTURE

Identification of fibers according to the following code : IEC 304

Nbr	1	2	3	4	5	6	7	8	9	10	11	12
Colors												
	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

From 13 to 24, the colors are identical but with an additional black stripe.

Identification of tubes according to the following code : IEC 304

Nbr	1	2	3	4	5	6	7	8	9	10	11	12
Colors												
	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

PURCHASE INFO

Nb of Fiber	Nb of Tube	Perf	References	Diameter (nom)	Weight (Kg)	Crush resistance(N/100mm)	Tensile strength (N)	Packing
24	2	OS2	KFO24OS2MTA	12.0mm	140	3000 long term 4000 short term	2000 long term 3600 short term	D4000M
48	4	OS2	KFO48OS2MTA	12.0mm	140	3000 long term 4000 short term	2000 long term 3600 short term	D4000M
72	6	OS2	KFO72OS2MTA	12.0mm	140	3000 long term 4000 short term	2000 long term 3600 short term	D4000M
96	8	OS2	KFO96OS2MTA	14.0mm	180	3000 long term 4000 short term	2000 long term 3600 short term	D4000M
144	12	OS2	KFO144OS2MTA	18.0mm	220	3000 long term 4000 short term	2000 long term 3600 short term	D4000M



KFOxxxxMTA

HDPE outdoor armored multi-tube fiber optic cable



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/KM ^{1/2}
PMDQ	≤0.1 PS/KM ^{1/2}
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



KFOxxxxMTA

HDPE outdoor armored multi-tube fiber optic cable



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

