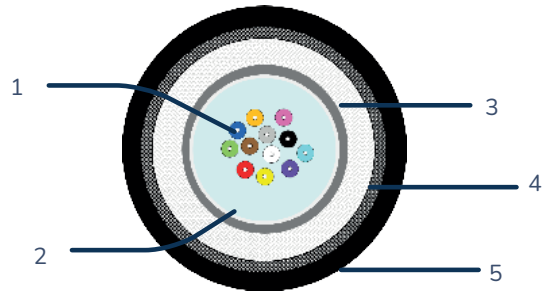


# KFOxxxxCTA

Central tube armored outdoor PEHD optical fiber 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 250microns
- 2. PBT tube filled with thixotropic gel
- 3. Fiber glass protection
- 4. Corrugated steel armor
- 5. Black PEHD jacket RAL 9005

## THE PURPOSE

Our fiber optic cable offers a high performance solution for data transmission, while offering enhanced protection against rodent, water penetration and UV rays. This cable contains up to 24 optical fibers, each protected by color-coded PBT tubing for easy identification. The central dielectric tube is filled with a thixotropic waterblocking gel, ensuring optimal protection against humidity. To reinforce the structure, fiberglass filaments are added, and a dry swelling material fills the gaps to prevent any water penetration. 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

IEC 601793 B1.3 Singlemode  
IEC 601793-2 A1 Multimode

### System

ISO/IEC 11801-1:2017 OS2, OM3  
or OM4

### Applications

From 1G to 400G

## THE STRUCTURE

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

**Tube** : PBT filled with thixotropic gel, accommodates up to 24 optical fibers - 2-12FO :2.9mm /16FO-24FO : 3.3mm.

**Fiber glass protection** : «waterblocking» glass yarn.

**Assembly**: Central core with waterblocking tape.

**Armor**: Corrugated steel.

**Jacket** : Black PEHD RAL9005

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



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## THE STRUCTURE

Marking 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.

## PURCHASE INFO

Nb of Fibre	Nb of Tube	Perf	References	Diameter (nom)	Weight (Kg)	Crush resistance (N/100mm)	Tensile strength(N)	Packaging
6	1	OS2	KFO6OS2CTA	7.4mm	97	2000 long term	1600 long term 2700 Short term	D4000M
8	1	OS2	KFO8OS2CTA	7.4mm	98	2000 long term	1600 long term 2700 Short term	D4000M
12	1	OS2	KFO12OS2CTA	7.4mm	99	2000 long term	1600 long term 2700 Short term	D4000M
24	1	OS2	KFO24OS2CTA	8.0mm	113	2000 long term	1600 long term 2700 Short term	D4000M
6	1	OM3	KFO6OM3CTA	7.4mm	97	2000 long term	1600 long term 2700 Short term	D4000M
8	1	OM3	KFO8OM3CTA	7.4mm	98	2000 long term	1600 long term 2700 Short term	D4000M
12	1	OM3	KFO12OM3CTA	7.4mm	99	2000 long term	1600 long term 2700 Short term	D4000M
24	1	OM3	KFO24OM3CTA	8.0mm	113	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/KM <sup>1/2</sup>
PMDQ	≤0.1 PS/KM <sup>1/2</sup>
ZERO-DISPERSION WAVELENGTH	1300 ~ 1324 NM
ZERO-DISPERSION SLOPE	≤ 0.092 PS/(NM <sup>2</sup> .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

