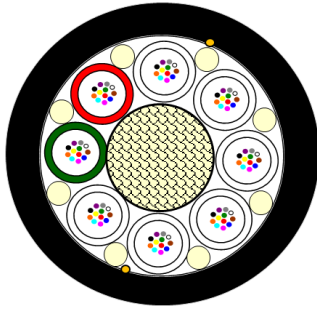


## Outdoor microduct optical fibre cable

### TC06105



- 288FO version illustrated, not to scale -

#### Cable Design

#### According to IEC/EN 60794

- **Central Strength Member (CSM):** glass fibres reinforced plastic material (FRP).
- **Loose Tube:** thermoplastic material containing 12 optical fibres and filled with a suitable water tightness compound.
- **Filler Elements:** thermoplastic rods, when needed
- **Stranding:** loose tubes, SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable materials (dry core)
- **Fillers:** between stranded tubes and sheath to improve the shape of the cable (for 48 and 96 fibre cable).
- **Outer Sheath:** HDPE one ripcord beneath.

#### Cable Application

This optical cable is designed for duct installation by blowing technique.

#### Technical Data

No. of Fibres		48	96	144	288
Design	-	4x12	8x12	12x12	8x12+16x12
Tube Diameter – Ø	mm	1.35			
CSM/Enlargement – Ø	mm	1.4/-	2.3/-	2.6/4.2	2.3/-
Inner Sheath Thickness		-			
Outer Sheath Thickness	mm	0.4			
Cable Diameter – Ø	mm	5	5.8	7.7	9.3
Cable Weight	kg / km	22	35	51	75
Minimum Bending Radius	mm	Under Maximum Tension: 20 x Cable Ø		Without Tension: 15 x Cable Ø	
Temperature Range	°C	Transport & Storage: -40 → +70		Installation: -5 → +55	Operation: -25 → +70

#### Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
Tensile Performance	IEC 60794-1-21-E1	700 N for 48 fibre cable 1000 N for 96 ÷ 288 fibre cables	$\Delta l \leq 0.6\%$ , $\Delta \alpha$ reversible
Repeated Bending	IEC 60794-1-2-E6	R=40xOD, 2s, 25 cycles	$\Delta \alpha \leq 0.10$ dB, no damage
Crush	IEC 60794-1-2-E3	3 x 500N/100mm, 5min	$\Delta \alpha \leq 0.10$ dB under test, no damage
Cable Torsion	IEC 60794-1-2-E7	$\pm 180^\circ$ , 2 m, 5 cycles, 45N	$\Delta \alpha \leq 0.10$ dB after the test, no damage
Impact	IEC 60794-1-2-E4	1 J, 3 impacts, R=300 mm	$\Delta \alpha \leq 0.10$ dB after the test, no damage
Temperature Cycling	IEC 60794-1-2-F1	TA1 = -15 °C TB1 = +15 °C TA2 = -25 °C TB2 = +70 °C 2 cycles	$\Delta \alpha \leq 0.15$ dB/Km under test, reversible
Water Penetration	IEC 60794-1-2-F5B	1 m sample, 1m water, 24 h	No water penetration

## Optical Characteristics

See the attached cabled optical fibre data sheet.

## Identification

### Fibre Colours <sup>(1)</sup>:

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	brown	grey	yellow	red	violet	white	black	pink	turquoise

### Tube Colours <sup>(1)</sup>:

No.	Pilot	Intermediate	Marker
Colour	red	white	green

If fillers are required, white tubes become yellow fillers.

### Sheath Colour:

The outer sheath colour is black.

### Sheath Marking <sup>(2)</sup>:

The outer sheath is marked in 1-meter intervals as follows:

**ETC GROUP [COMTEC CODE] /A MICRO BLOWN CABLE [Qty of Fibre]FO [Fibre Type] [YEAR]  
[WEEK] [Batch Number] [Length]m**

SAP code	COMTEC CODE
48fo 60094260	829145/A
96fo 60094261	829146/A

## Logistic

**Packing:** Wooden drums with protection.

**Delivery Lengths <sup>(3)</sup>:** Standard delivery length is 4 km with a tolerance of - 1% / + 3%.

(1) Other delivery lengths available upon agreement.

All optical measurements in accordance with ITU-T G650 recommendations

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