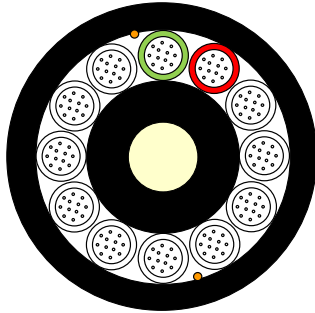


## Outdoor microduct optical fibre cable

### TC06517



-not to scale-

#### Cable Design

According to IEC/EN 60794

- **Optical Fibres:** 250µm single-mode G.657.A1.
- **Central Strength Member (CSM):** glass fibres reinforced plastic rod (GRP) with over-sheath.
- **Tubes:** thermoplastic material containing 12 optical fibres and filled with a suitable water tightness compound.
- **Stranding:** loose tubes, SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable materials (dry core).
- **Outer Sheath:** UV resistant HDPE, 2 ripcords beneath.

#### Cable Application

These outdoor Sirocco microduct optical fibre cables are optimized for installation by blowing into microducts and protected microducts. Please refer to our General Installation, Safety & Handling recommendations handling.

#### Technical Data

<b>No. of Fibres</b>		<b>144</b>		
<b>Design</b>	Ref	60096577		
<b>Layout (Tubes x Fibres)</b>	-	12 x 12		
<b>Tube Diameter – Ø</b>	mm	1.5		
<b>CSM/Enlargement – Ø</b>	mm	3.0 / 4.5		
<b>Sheath Thickness</b>	mm	0.5		
<b>Cable Diameter – Ø</b>	mm	8.5		
<b>Cable Weight</b>	kg / km	67		
<b>MIT (Maximum Installation Tension)</b>	N	670		
<b>Minimum Bending Radius</b>	mm	Under Maximum Tension: 20 x Cable Ø	Without Tension: 50 x CSM Ø	
<b>Temperature Range</b>	°C	Transport & Storage: -40 → +70	Installation: -20 → +45	Operation: -30 → +60

#### Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
<b>Tensile Performance</b>	IEC 60794-1-21-E1	1 x W, see table above	$\Delta\alpha \leq 0.05$ dB, $\Delta/I \leq 0.60\%$
<b>Crush</b>	IEC 60794-1-21-E3	1500 N / 100 mm, 1 min	$\Delta\alpha \leq 0.05$ dB
<b>Impact</b>	IEC 60794-1-21-E4	1 J, 3 impacts, R = 300 mm	$\Delta\alpha \leq 0.05$ dB
<b>Repeated Bending</b>	IEC 60794-1-21-E6	R = 50 x CSM Ø, 25 cycles	Cable integrity
<b>Torsion</b>	IEC 60794-1-21-E7	$\pm 360^\circ$ , 2 m	$\Delta\alpha \leq 0.05$ dB
<b>Kink</b>	IEC 60794-1-21-E10	R = 50 x CSM Ø	Cable integrity
<b>Bend</b>	IEC 60794-1-21-E11	R = 50 x CSM Ø, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB
<b>Temperature Cycling</b>	IEC 60794-1-22-F1	-30 °C to +60 °C -40 °C to +60 °C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.15$ dB/km
<b>Water Penetration</b>	IEC 60794-1-22-F5B	3 m sample, 1 m water, 24 h	no water penetration
<b>Ageing</b>	IEC 60794-1-22-F9	168 hours, +85 °C	$\Delta\alpha \leq 0.25$ dB/km, 0.10 dB/km average

#### Optical Characteristics

See the attached optical fibre data sheet ref: 250µm single-mode G.657.A1 (CH).

## Identification

### Fibre Colours:

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

### Tube Colours:

No.	Pilot	Intermediate	Marker
Colour	red	white	green

### Sheath Colour:

The outer sheath colour is black.

### Sheath Marking:

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

ETC GROUP 829147/A MICRO BLOWN CABLE 144FO G657A1 <year> <week> <batch number> <length marking>M

## Logistic

**Packing:** Plywood reels or wooden drums with protection.

**Delivery Lengths:** Standard delivery length is 2 km.  
Maximum delivery length is 6 km.

*All optical measurements in accordance with ITU-T G650 recommendations*

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