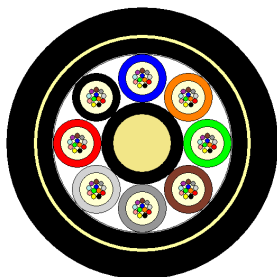


Optical fibre cables for aerial installation (ADSS)

Cable Design

Acc. to IEC 60794



- Figure : 96 fibres cable (not to scale) -

- **Central Strength Member (CSM):** glass fibre reinforced plastic rod (FRP)
- **Loose tube:** thermoplastic material, containing optical fibres and filled with a suitable water tightness compound.
- **Filler elements:** thermoplastic rods (when needed).
- **Stranding:** loose tubes and fillers SZ stranded around the CSM.
- **Longitudinal water tightness:** dry core with water swellable elements.
- **Inner sheath:** polyethylene. One ripcord is laid beneath.
- **Peripheral strength elements:** aramid yarns.
- **Outer sheath:** HDPE. One ripcord is laid beneath.

Technical data

No. of Fibres		96	132	144	96	132	144
Design		8 x 12	11 x 12	12 x 12	8 x 12	11 x 12	12 x 12
Loose Tube – Ø	mm	2.5					
CSM – Ø / Upjacketed to – Ø	mm	3.0 / 4.2	3.5 / 7.5		3.0 / 4.2	3.5 / 7.5	
Inner / Outer Sheath Thickness	mm	0.8 / 1.4					
Cable diameter	mm	14.0	17.3		14.0	17.3	
Cable weight	kg / km	150	230		150	230	
Modulus of elasticity	kN / mm ²	55.0	56.6		63.8	60.8	
Effective area	mm ²	7.7	11.2		9.3	12.3	
Thermal expansion coefficient	·10 ⁻⁶ °C ⁻¹	30.5	28.3		22.4	24.3	
MOT (maximum tension in operation , no fibre strain)	kN	2.5	3.2		3.1	3.9	
MRCL(maximum allowable tension, MAT)	kN	3.5	4.5		4.5	5.5	
Breaking strength	kN	8.3	12.7		11.0	15.0	
Maximum Span	m	150	150		200	200	
Minimum Bending Radius	mm	Without Tension 15 x Cable-Ø			Under Maximum Tension 20 x Cable-Ø		
Temperature Range	°C	Installation - 30 to + 70		Transport & Storage - 50 to + 70		Operation -40 to + 70	

Please refer to our General Installation, Safety & Handling recommendations before handling.

Main characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Maximum Tension	IEC 60794-1-2-E1	MOT : see table above MRCL : see table above	$\Delta I/I \text{ fibre} \leq 0.05\%$, $\Delta \alpha \leq 0.1 \text{ dB}$ $\Delta I/I \text{ fibre} \leq 0.2\%$, $\Delta \alpha$ reversible
Crush	IEC 60794-1-2-E3	2000 N / 100 mm, max. 15 min	$\Delta \alpha \leq 0.05 \text{ dB}$, no damage
Impact	IEC 60794-1-2-E4	10 Nm, 3 impacts, R= 300 mm	$\Delta \alpha \leq 0.05 \text{ dB}$ after the test
Cable Bend	IEC 60794-1-2-E11	R=20x D, 4 turns, 3 cycles	$\Delta \alpha \leq 0.05 \text{ dB}$, no damage
Temperature Cycling	IEC 60794-1-2-F1	-40°C to +70°C	$\Delta \alpha \leq 0.05 \text{ dB/km}$
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m,24h	no water leakage under 1 st sheath






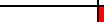






All optical measurements at 1550 nm.

Optical Characteristics






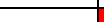






See the attached cabled optical fibre data sheet.

Identification

Fibre Colours

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

Buffer Tube Colours

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

Filler Elements Colours:

All filler elements are uncoloured (natural).

Sheath Colour:

The outer sheath colour is black.

Sheath Marking:

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

**DRAKA UFINET TELECOM <year of manufacture> <no. and type of fibres> <MRCL value in kN>
<length marking in meters>**

Logistic

Packing:

Wooden drums with protection.

Delivery Lengths:

Standard delivery lengths are 2 km, 4 km, 6 km with a tolerance of - 1% / + 3%

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