Prysmian Group



Specification for mini cables for use in micro ducts

Cable Design

In line with 1056-TOLA 10408/2009



- **Optical Fibre:** All fibres are grouped together in an easy strippable natural coating. See datasheet CFS09002 for G.652.D and CFS09003 for G.657.A2
- Strength members: aramid yarns are applied in the cable.
- Outer sheath: consists of a high e-modulus thermoplastic material.

- not to scale -

This dielectric optical cable is designed for outdoor installation in micro ducts by blowing or pulling techniques.

Technical data					
No. of Fibres		2	4	6	
Sheath thickness	mm	0.3			
Cable Diameter	mm	1.8 ± 0.2	1.8 ± 0.2	2.0 ± 0.2	
Cable Weight	kg / km	3	3	3.7	

Main characteristics

Test	Standard	Specified value	Acceptance Criteria**
Tensile Performance	IEC 60794-1-2-E1	150N	$\Delta \alpha \le 0.05 \text{ dB}$
Crush	IEC 60794-1-2-E3	500N, 100mm plate/plate 1min.	$\Delta \alpha \leq 0.05 \text{ dB}$, during test, no damage
		1000N, 100mm plate/plate 1min.	$\Delta \alpha \leq 0.05 \text{ dB}$, after test, no damage
Impact	IEC 60794-1-2-E4	2 Nm, R=300mm, 3 impacts	No damage
Torsion	IEC 60794-1-2-E7	±180°, L=1m, 10 cycles	$\Delta \alpha \leq 0.05 \text{ dB}$, no damage
Kink	IEC 60794-1-2-E10	Min diameter=30mm	No damage
Repeated bending	IEC 60794-1-2-E6	R= 15x cable Ø,100 cycles, 20N	No damage
Cable bend	IEC 60794-1-2-E11	D=100mm,5 turns,3 cycles, -10°C	$\Delta \alpha \leq 0.05 \text{ dB}$, No damage
Temperature range	IEC 60794-1-2-F1	-20 to +60°C	$\Delta \alpha \le 0.05 \text{ dB}$
		-30 to +60°C	$\Delta \alpha$ reversible

** values for single-mode fibres, all optical measurements performed at 1550 nm

Min. bending radius	mm	Without Tension 15 x Cable-Ø	Unde	Under Maximum Tension 25 x Cable-Ø	
Temperature range	°C	•	t. & Storage to +60	Operation -20 to +60	





Optical Characteristics

See the attached cabled optical fibre data sheet for G.652.D and G.657.A2 BBXS.

Identification

Fibre Colours

No.	1	2	3	4	5	6
Colour	Red	Blue	White	Green	Yellow	Grey

Sheath Colour

The colour is orange for graded index (multi mode), fibres and yellow for single mode fibres.

Sheath Marking

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

RALA DRAKA(DL) JN-SM-TRX / GAGLDV [fibre count] x [fibre type] S12 Idno.[xxxxxx] [Year] [length marking]m

Logistic

Packing:

Plastic or Plywood Drums with protection.

Delivery Lengths:

Standard delivery length is 2km with a tolerance of -1% / + 3%

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