

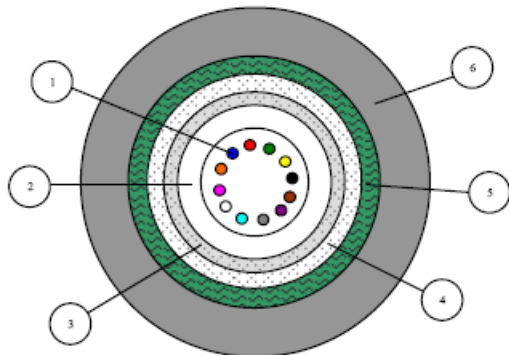
FIBER OPTIC CABLES

CORRUGATED STEEL TAPE, LOOSE-TUBE, G.652D

CABLE DESCRIPTION – APPLICATIONS

Central loose tube, outdoor, corrugated steel tape armoured FO cables suitable for drawing or air-blown installation in plastic cable ducts, laying on open or protected trenches or even for direct buried installation in the ground. They are protected against longitudinal moisture penetration through dry, swellable elements. The corrugated steel tape offers the most efficient and flexible protection against rodents. These cables are specially designed for fast and low-cost fiber optic deployment in trunk, urban (metropolitan) or local telecommunication networks and they can be successfully used in any FTTx infrastructure.

CABLE DESIGN



Note 1: 12-fiber cable is illustrated
Note 2: drawing is not to scale

1. **Optical fiber:** coloured glass fiber
2. **Loose tube:** PBT tube, filled with jelly compound.
3. **Reinforcing elements:** Glass yarns with water blocking coating.
4. **Wrapping:** water blocking tape, longitudinally applied with overlap.
5. **Armouring:** Corrugated steel tape, longitudinally applied with overlap.
6. **Outer jacket:** Black, UV resistant HDPE.

	4	6	8	12
No. of fibers	4	6	8	12
No. of loose tubes	1	1	1	1
No. of fibers / tube	4	6	8	12
No. of filler elements	-	-	-	-
Outer sheath thickness (nominal) (mm)	1.5	1.5	1.5	1.5
Cable overall diameter (nominal) (mm)	11	11	11	11
Cable weight (nominal) (kg/km)	115	115	115	115

CABLE MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Tested according	Specified value	Acceptance criteria
Tensile strength (short term – installation)	IEC 60794-1-2E1	1500 N	$\Delta\alpha < 0.05$ dB reversible, fiber strain < 0.33 %
Tensile strength (long term – operation)	IEC 60794-1-2E1	500 N	$\Delta\alpha < 0.05$ dB reversible, no fiber strain
Crush resistance (short term)	IEC 60794-1-2E3	3000 N/10cm	$\Delta\alpha < 0.05$ dB reversible, no damage
Crush resistance (long term)	IEC 60794-1-2E3	1200 N/10cm	$\Delta\alpha < 0.05$ dB reversible, no damage
Impact resistance	IEC 60794-1-2E4	10 N. m, 3 impacts spaced, R= 30 mm	$\Delta\alpha < 0.05$ dB reversible, no damage
Torsion	IEC 60794-1-2E7	$\pm 180^\circ$, 3 cycles, 50 N	$\Delta\alpha < 0.05$ dB reversible, no damage
Bending (static)	IEC 60794-1-2E11	R= 15 x D, 5 turns, 3 cycles	$\Delta\alpha < 0.05$ dB reversible, no damage
Repeated bending (dynamic)	IEC 60794-1-2E6	R= 20 x D, 100 N, 30 cycles	$\Delta\alpha < 0.05$ dB reversible, no damage
Temperature cycling	IEC 60794-1-2F1	-25°C to +70°C	$\Delta\alpha < 0.05$ dB/km
Water tightness	IEC 60794-1-2F5b	3m cable, 1 m water column, 24 h	no water detected with UV light

Note: all optical power measurements are at 1550nm.

IDENTIFICATION COLOUR CODING

Fiber colours per tube

1	2	3	4	5	6	7	8	9	10	11	12
Red	Green	Yellow	Natural	Brown	Violet	Grey	Turquoise	White	Pink	Orange	Blue

Note: Other fiber colour coding can be provided if requested.