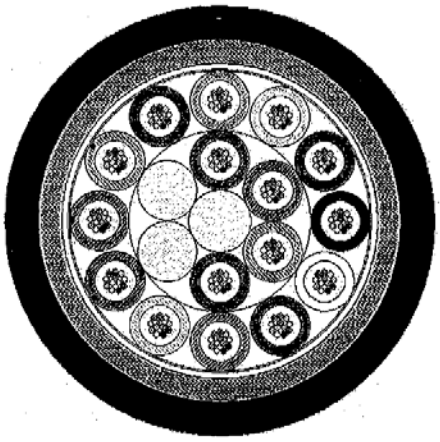
ALCATEL	CABLE DATASHEET Optical fiber cables	Cable Code: CDS-040B Date: 01/03/02

Cable Types:

192 FIBERS (48 SSM + 144 TL) ARMOURED CABLES FOR DUCT APPLICATIONS



- **Dielectric Central Strength Member (CSM) : FRP**
- **Loose Tubes containing optical fibers and full of filling compound**
- **Water swellable elements**
- **Dielectric reinforcement : aramid yarns**
- **Bonded Corrugated Copolymer Steel Tape**
- **Black Polyethylene Outer Sheath**

CABLE DIMENSIONS and MAIN CHARACTERISTICS

No. of fibers		**192**
No. of fibers per tube		12
No. of SSM G.652 Fibers (*)		48 (four tubes in first layer)
No. of TL G.655 Fibers (**)		144 (twelve tubes in second layer)
No. of tubes		4 + 12
No. of fillers (dummy tubes)		2 + 0
Loose tube / filler diameter	mm	2.5
CSM diameter	mm	2.6
Cable diameter	mm	18.4
Cable weight	Kg/km	290

TRANSMISSION CHARACTERISTICS:

(*) **SSM fibers**

Attenuation at	1310 nm	≤ 0.38 dB/km
	1550 nm	≤ 0.25 dB/km

Other characteristics Acc. ITU-T G652. Alcatel type 6900

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(**) **NZDS fibers**

Attenuation at	1550 nm	≤ 0.25 dB/km
	1625 nm	≤ 0.25 dB/km

Other characteristics Acc. ITU-T G.655
Alcatel type Teralight™ 6911

IDENTIFICATION

Fibers color code:

No.	Color	No.	Color	No.	Color
1	Blue	**5**	Grey	**9**	Yellow
2	Orange	**6**	White	**10**	Violet
3	Green	**7**	Red	**11**	Pink
4	Brown	**8**	Black	**12**	Turquoise

Loose Tubes and fillers color code

FIRST LAYER			
Tube No.	**Color / Fiber Type**	**Tube No.**	**Color / Fiber Type**
1	Blue / TL	**4**	Brown / TL
2	Orange / TL	**5**	Filler (Natural)
3	Green / TL	**6**	Filler (Natural)
SECOND LAYER			
7	Grey / TL	**13**	Pink / TL
8	White / TL	**14**	Turquoise / TL
9	Red / TL	**15**	Striped Blue / SSM
10	Black / TL	**16**	Striped Orange / SSM
11	Yellow / TL	**17**	Striped Green / SSM
12	Violet / TL	**18**	Striped Brown / SSM

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MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile performance	EN 187000,501	2700 N	$\Delta\alpha \leq 0.05$ dB
Crush	EN 187000,504	2 kN / 100 mm	$\Delta\alpha \leq 0.05$ dB
Impact	EN 187000,505	10 Nm, 3 impacts	$\Delta\alpha \leq 0.05$ dB
Repeated bending	EN 187000,507	280 mm bending radius 100 cycles	$\Delta\alpha \leq 0.05$ dB
Torsion	EN 187000,508	±180°, 1m, 100 N	$\Delta\alpha \leq 0.05$
Temperature cycling	EN 187000,602	-10°C ... +60°C	$\Delta\alpha \leq 0.05$ dB/km
Water penetration	EN 187000,605	1 m cable, 1 meter water, 24 h	No water leakage