

FIBER OPTIC DUCT CABLE



Optical fibre



Water blocked



Dielectric



ROHS compliant



UV resistant

STANDARDS

TSC3 Optical Duct Cables

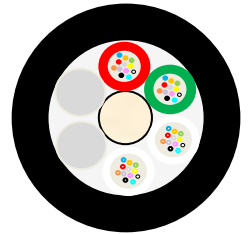
IEC 60794

DESCRIPTION AND APPLICATION

Cables from 24 to 288 singlemode optical fibers for networks, completely dielectric, with P sheath for duct installation.

CONSTRUCTION

- Singlemode optical fibers according to ITU-T G.652D.
- PBT loose tubes filled with thixotropic compound. Optional fillers depending on the cable structure. Colour coding according to tables 1 and 2.
- Dielectric fibreglass central reinforced element.
- Black polyethylene outer jacket.
- **Sheath marking:** The cable sheath will be marked at regular intervals with the following information:
 - *Manufacturer / year / Number and type of fibres / Sheath / Length markers*
 - *Other sheath marks available upon request*



OPTICAL FIBER CHARACTERISTICS

The parameters of the optical fibres are compliant with the ITU-T G.652 recommendation

Optical characteristics:

Attenuation coefficient:

Average at 1310 nm $\leq 0,35$ dB/km

Individual maximum at 1310 nm $\leq 0,37$ dB/km

Average at 1550 nm $\leq 0,22$ dB/km

Individual maximum at 1550 nm $\leq 0,25$ dB/km

PMD $\leq 0,20$ ps/km^{1/2}

PMD_Q link value $\leq 0,10$ ps/km^{1/2}

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TABLE 1: LOOSE TUBES COMPOSITION

Tube Number	Tube Colour	Direction
1	Red	Green
2	Green	White
3	White	Next White
n	White	Next White
Filling Elements	Natural	Natural

TABLE 2: OPTICAL FIBERS COLOUR CODE

Fibre number	Colour	Fibre Number	Colour
1	White	7	Brown
2	Red	8	Black
3	Yellow	9	Violet
4	Green	10	Turquoise
5	Blue	11	Orange
6	Grey	12	Pink

MECHANICAL REQUIREMENTS

Tensile strength ($\Delta\epsilon_f \leq 0,2\%$)	IEC 60794-1-21 Met.1	1,5 kN
Maximum tensile strength ($\Delta\epsilon_f \leq 0,6\%$)	IEC 60794-1-21 Met.1	2,5 kN
Crush resistance	IEC 60794-1-21 Met. E3B	1000 N/250 mm
Impact resistance	IEC 60794-1-21 Met. E4	5 J
Operating temperature cycling ($\Delta\alpha \leq 0,05\text{dB}$)	EN 187000 Met. 601	-30°C / 70°C

OTHER CHARACTERISTICS

Minimum bending diameter	20xØ
Ambient installation temperature	-15°C/60°C
Storage temperature	-40°C/70°C

SIZE AND WEIGHT

Number of fibres	Active tubes	Passive Elements	Cable Nominal diameter (mm)	Nominal weight (kg/km)
192	4+12	2+0	15,5	187

Note: All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and may not be considered contractual.



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