

### PRELIMINARY TECHNICAL DESCRIPTION OF FIBER OPTIC CABLE

## 1. Cable construction



#### Cable construction

1. Outer sheath: UV-resistant PE

2. Tape armor: Corrugated steel tape

3. Inner sheath: UV-resistant PE

4. Optical loose tube: 1,4mm PBT Tube

5. Intramodule compound: Thixotropic compound

6. Optical Fiber: Single-mode Fiber according to ITU-T G.652.D

7. Water-blocking element of core: Water-swellable yarn

8. Central strength element: Glass reinforced plastic 2,8mm FRP-E

9. Rip-cord: Water-swellable yarn

Temperature ranges	Storage and transportation	Installation	Operating				
	temperature	temperature	temperature				
	from -30 to +70 °C	from -15 to +50 °C	from -30 to +70 °C				
Resistance to water	Water resistant						
penetration							
Relative humidity at +35° C, %	98						
Outer diameter, mm	13,0±0,2						
Average weight of 1 km of the	162±5%						
cable, kg							

### 2. Mechanical characteristics

Calculated tensile strength, not less than <sup>1</sup> , kN	
Dynamic	3,0
Minimum bending radius	20D
Short-term crush test, kN/cm (N/10cm)	0,1 (1000)
Resistance to axial torsion at angle ±360° on 2 m length cable	Resistant
Resistance to bends at angle $\pm 90^{\circ}$ with a radius equal to 20 nominal	Resistant
cable diameters	
Resistance to impact 5 J	Resistant

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<sup>&</sup>lt;sup>1</sup> Tensile strength value is for maximum number of fibers design



# 3. Packaging and marking

Cable factory length, km	6		
Package	Drum №17 (1715x955x1715)		
Tolerance, %	±3,0		
Short lengths (customer approval)	Maximum 5%		
Marking method	Inkjet printing		
The accuracy of marking, %	±0,5		

## 4. Coloring

Coloring	Coloring of fibers in loose tube (According to Customer's requirements color can be different).										
1	2	3	4	5	6	7	8	9	10	11	12
red	green	blue	yellow	white	slate	brown	violet	aqua	black	orange	pink

Coloring of optical loose tube (According to Customer's requirements color can be different). Core-filler color is natural. "+m"- denotes single black stripe marking via co-extrusion, white stripe marking for black loose tube. Layer 2 Layer 1 2 3 5 7 9 2 3 1 4 6 8 1 slate blue yellow white violet green blue red green brown aqua red Layer 2 5 7 8 9 10 12 15 4 6 11 13 14 black pink yellow white slate brown violet aqua orange <u>red+m</u> green+m blue+m

## 5. Product data

Fiber count	192	216	288
Loose tubes x fibers	16x12	18x12	24x12