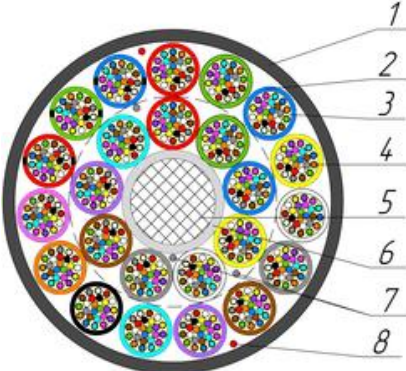


TECHNICAL DESCRIPTION OF FIBER OPTIC CABLE

1. Cable construction

| | | | |
|--|--|--------------------------|-----------------------|
| Cable type | A-DQ(ZN)2Y (12-24)x24-200-652D/657A1-10129 | | |
|  | | | |
| <p>Cable construction</p> <ol style="list-style-type: none"> 1. Outer sheath: UV-resistant PE 2. Optical loose tube: 1,55mm PBT Tube 3. Intramodule compound: Thixotropic compound 4. Optical Fiber: 200 mkm Single-mode Fiber according to ITU-T G.652.D and G.657.A1 5. Central strength element: Glass reinforced plastic 2,5mm FRP-E with insulation up to 3,0mm 6. Insulation of central strength element: PE 7. Water-blocking element of core: Water-swellaable yarn 8. Rip-cord: Water-swellaable yarn | | | |
| Temperature ranges | Storage and transportation temperature | Installation temperature | Operating temperature |
| | from -20 to +70 °C | from -10 to 50 °C | from -20 to +70 °C |
| Resistance to water penetration | Water resistant | | |
| Relative humidity at +35° C, % | 98 | | |
| Outer diameter, mm | 9,8±0,2 | | |
| Average weight of 1 km of the cable, kg | 98±5% | | |

2. Mechanical characteristics

| | |
|--|------------|
| Calculated tensile strength, not less than ¹ , kN Dynamic | 3 |
| Minimum bending radius | 20D |
| Short-term crush test, kN/cm (N/10cm) | 0,03 (300) |
| Resistance to axial torsion at angle ±180° on 2 m length cable | Resistant |
| Resistance to bends at angle ± 90° with a radius equal to 20 nominal cable diameters | Resistant |
| Resistance to impact 2 J | Resistant |

¹ Tensile strength value is for maximum number of fibers design

3. Packaging and marking

| | |
|-----------------------------------|--------------------------|
| Cable factory length, km | 6 |
| Package | Drum №14 (1401x813x1401) |
| Tolerance, % | ±3,0 |
| Short lengths (customer approval) | Maximum 5% |
| Marking method | Inkjet printing |
| The accuracy of marking, % | ±0,5 |

4. Coloring

Coloring of fibers in loose tube (According to Customer's requirements color can be different). M-fiber with black ring mark.

| | | | | | | | | | | | |
|--------------|----------------|---------------|-----------------|----------------|----------------|----------------|-----------------|---------------|-------------|-----------------|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| red | green | blue | yellow | white | slate | brown | violet | aqua | black | orange | pink |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| <u>red+m</u> | <u>green+m</u> | <u>blue+m</u> | <u>yellow+m</u> | <u>white+m</u> | <u>slate+m</u> | <u>brown+m</u> | <u>violet+m</u> | <u>aqua+m</u> | transparent | <u>orange+m</u> | <u>pink+m</u> |

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 1 | | | | | | | | | Layer 2 | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 | 2 | 3 |
| red | green | blue | yellow | white | slate | brown | violet | aqua | red | green | blue |
| Layer 2 | | | | | | | | | | | |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| yellow | white | slate | brown | violet | aqua | black | orange | pink | <u>red+m</u> | <u>green+m</u> | <u>blue+m</u> |

5. Product data

| | | | | |
|----------------------|-------|-------|-------|-------|
| Fiber count | 288 | 384 | 432 | 576 |
| Loose tubes x fibers | 12x24 | 16x24 | 18x24 | 24x24 |