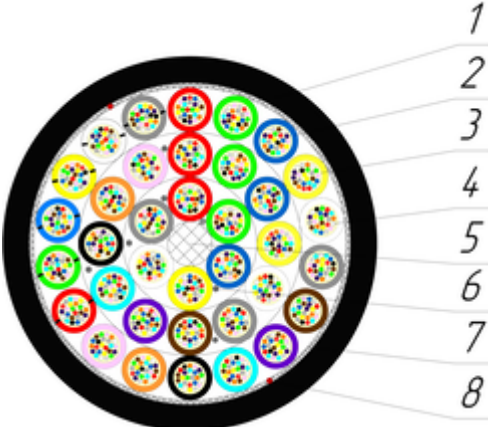


## TECHNICAL DESCRIPTION OF FIBER OPTIC CABLE

### 1. Cable construction

|   |   |                          |                       |
|---|---|--------------------------|-----------------------|
| Cable type  | A-DQ(ZN)B2Y 36x24-G.652.D/G.657.A1-6313 |                          |                       |
|   |   |                          |                       |
| <p>Cable construction</p> <ol style="list-style-type: none"> <li>Outer sheath: UV-resistant PE</li> <li>Optical loose tube: 2,3mm PBT Tube</li> <li>Intramodule compound: Thixotropic compound</li> <li>Optical Fiber: Single-mode Fiber according to ITU-T G.652.D and G.657.A1</li> <li>Central strength element: Glass reinforced plastic 2,3mm FRP-E</li> <li>Water-blocking element of core: Water-swellable yarn</li> <li>Peripheral water-blocking strength element: Water swellable glass yarn</li> <li>Rip-cord: Water-swellable yarn</li> </ol> |   |                          |                       |
| Temperature ranges  | Storage and transportation temperature  | Installation temperature | Operating temperature |
|   | from -20°C to +70°C                     | from -15°C to +50°C      | from -20°C to +70°C   |
| Resistance to water penetration   | Water resistant                         |                          |                       |
| Relative humidity at +35 <sup>0</sup> C, %  | 98                                      |                          |                       |
| Outer diameter, mm  | 19,3±0,2                                |                          |                       |
| Average weight of 1 km of the cable, kg   | 293±5%                                  |                          |                       |

### 2. Mechanical characteristics

|  |            |
|--|------------|
| Calculated tensile strength, not less than <sup>1</sup> , kN Dynamic                             | 4          |
| Minimum bending radius   | 20D        |
| Short-term crush test, kN/cm (N/10cm)  | 0,05 (500) |
| Resistance to axial torsion at angle ±360° on 4 m length cable                                   | Resistant  |
| Resistance to bends at angle ± 90 <sup>0</sup> with a radius equal to 20 nominal cable diameters | Resistant  |
| Resistance to impact 5 J   | Resistant  |

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

### 3. Packaging and marking

|                                   |                            |
|-----------------------------------|----------------------------|
| Cable factory length, km          | 4                          |
| Package                           | Drum №18a (1870x1370x1870) |
| 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     | 1            | 2              | 3             | 4               | 5              | 6              |
| red     | green  | blue | yellow | white  | slate | red          | green          | blue          | yellow          | white          | slate          |
| Layer 2 |        |      |        |        |       | Layer 3      |                |               |                 |                |                |
| 7       | 8      | 9    | 10     | 11     | 12    | 1            | 2              | 3             | 4               | 5              | 6              |
| brown   | violet | aqua | black  | orange | pink  | red          | green          | blue          | yellow          | white          | slate          |
| Layer 3 |        |      |        |        |       |              |                |               |                 |                |                |
| 7       | 8      | 9    | 10     | 11     | 12    | 13           | 14             | 15            | 16              | 17             | 18             |
| brown   | violet | aqua | black  | orange | pink  | <u>red+m</u> | <u>green+m</u> | <u>blue+m</u> | <u>yellow+m</u> | <u>white+m</u> | <u>slate+m</u> |

### 5. Product data

|                      |       |
|----------------------|-------|
| Fiber count          | 864   |
| Loose tubes x fibers | 36x24 |