

## TECHNICAL DESCRIPTION OF FIBER OPTIC CABLE

### 1. Cable construction

|  |  |                          |                       |
|--|--|--------------------------|-----------------------|
| Cable type   | A-DQ(ZN)2Y-(1-6)x12-250-652D-1081a     |                          |                       |
|  |  |                          |                       |
| <p>Cable construction</p> <ol style="list-style-type: none"> <li>1. Outer sheath: UV-resistant PE</li> <li>2. Optical loose tube: 1,55mm PBT Tube</li> <li>3. Intramodule compound: Thixotropic compound</li> <li>4. Optical Fiber: Single-mode Fiber according to ITU-T G.652.D</li> <li>5. Rip-cord: Water-swellable yarn</li> <li>6. Central strength element: Glass reinforced plastic 1,6mm FRP-E</li> <li>7. Water-blocking element of core: Water-swellable yarn</li> <li>8. Core filler: PE</li> </ol> |  |                          |                       |
| Temperature ranges   | Storage and transportation temperature | Installation temperature | Operating temperature |
|  | from -40 to +70 °C                     | from -10 to +50 °C       | from -40 to +70 °C    |
| Resistance to water penetration  | Water resistant                        |                          |                       |
| Relative humidity at +35° C, %   | 98                                     |                          |                       |
| Outer diameter, mm   | 5,6±0,2                                |                          |                       |
| Average weight of 1 km of the cable, kg  | 24±5%                                  |                          |                       |

### 2. Mechanical characteristics

|  |             |
|--|-------------|
| Calculated tensile strength, not less than <sup>1</sup> , kN<br>Dynamic              | 1,0         |
| Minimum bending radius   | 20D         |
| Short-term crush test, kN/cm (N/10cm)  | 0,12 (1200) |
| Resistance to axial torsion at angle ±360° 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   |

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

### 3. Packaging and marking

|                                   |                          |
|-----------------------------------|--------------------------|
| Cable factory length, km          | 6                        |
| Package                           | Drum №10 (1001x655x1001) |
| 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). |       |      |        |       |       |       |        |      |       |        |      |
| 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. |       |      |        |       |       |
| 1   | 2     | 3    | 4      | 5     | 6     |
| red   | green | blue | yellow | white | slate |

### 5. Product data

|                      |      |      |      |      |
|----------------------|------|------|------|------|
| Fiber count          | 12   | 24   | 48   | 72   |
| Loose tubes x fibers | 1x12 | 2x12 | 4x12 | 6x12 |