**TECHNICAL DESCRIPTION OF FIBER OPTIC CABLE**

Cable type A-DQ(ZN)В2Y 16x12-G.652.D-UCF-6309

Cable formula F-PBT+ FGA-PE

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|  | 1. Outer sheath  2. Peripheral water-blocking strength element  3. Optical loose tube  4. Intramodule compound  5. Optical Fiber  6. Water-blocking element  7. Central strength element  8. Core-filler  9. Rip-cord | | |
| **Cable construction** | | | | | |
| Outer sheath | | | UV-resistant PE | | |
| Peripheral water-blocking strength element | | | Water-swellable yarn | | |
| Optical loose tube | | | 2,0mm PBT tube | | |
| Intramodule compound | | | Thixotropic compound | | |
| Optical Fiber | | | Corning ® SMF-28® Ultra Optical Fiber according to ITU-T G.652.D and G.657.A1 | | |
| Water-blocking element | | | Water-swellable yarn | | |
| Central strength element | | | Glass reinforced plastic 2,0mm FRP-E | | |
| Core-filler | | | PE | | |
| Rip-cord | | | Synthetic yarn | | |
| Coloring of fibers in loose tube (According to Customer’s requirements color can be different) | | | Fiber №1  Fiber №2  Fiber №3  Fiber №4  Fiber №5  Fiber №6  Fiber №7  Fiber №8  Fiber №9  Fiber №10  Fiber №11  Fiber №12 | Blue  Orange  Green  Brown  Grey  White  Red  Black  Yellow  Purple  Rose  Aqua | |
| Coloring of optical loose tube (According to Customer’s requirements color can be different) | | | **1-st layer**  Loose tube №1  Loose tube №2  Loose tube №3  Loose tube №4  Core-filler  Core-filler  **2-st layer**  Loose tube №5  Loose tube №6  Loose tube №7  Loose tube №8  Loose tube №9  Loose tube №10  Loose tube №11  Loose tube №12 Loose tube №13  Loose tube №14  Loose tube №15  Loose tube №16 | Blue  Orange  Green  Brown  Natural  Natural  Blue  Orange  Green  Brown  Grey  White  Red  Black  Yellow  Purple  Rose  Aqua | |
| Number of the elements in a layer | | | 1+6+12 | | |
| Average weight of 1 km of the cable, kg | | | 151,6 | | |
| Average outer diameter (D), mm | | | 14,0±0,2 | | |
| **Optical parameters** | | | | | |
| Operation wavelength, nm | | | 1310-1550 | | |
| Attenuation coefficient at wavelength, dB/km, not more than  1310 nm  1383 nm  1550 nm | | | 0,36  0,35  0,22 | | |
| **Mechanical characteristics** | | | | | |
| Calculated tensile strength, not less than, kN  Dynamic | | | 3,0 | | |
| Minimum bending radius | | | 20D | | |
| Short-term crush test, kN/cm (N/10cm) | | | 0,3 (3000) | | |
| Resistance to axial torsion at angle ± 3600 on 4 m length cable | | | Resistant | | |
| Resistance to bends at angle ± 900 with a radius equal to 20 nominal cable diameters | | | Resistant | | |
| Resistance to impact 15,0 J | | | Resistant | | |
| Operating temperature | | | from -30 tо +70 °С | | |
| Installation temperature | | | from -15 tо +50 °С | | |
| Storage and transportation temperature | | | from -40 tо +70 °С | | |
| Resistance to water penetration | | | Water resistant | | |
| Relative humidity at +350 C, % | | | 98 | | |
| Cable factory length, km | | | 5,0/6,0 | | |
| Package | | | Drum №17 (1765х940х1765)/  Drum №18b (1870х1350х1870) | | |
| Tolerance, % | | | ±3 | | |
| Short lengths (customer approval) | | | Maximum 5% | | |
| The accuracy of marking | | | ±0,5 | | |