# FIBER OPTIC CABLE PRODUCT

INDOOR DISTRIBUTION CABLE SM, MM

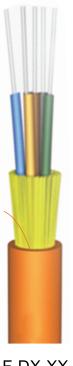


### **APPLICATION**

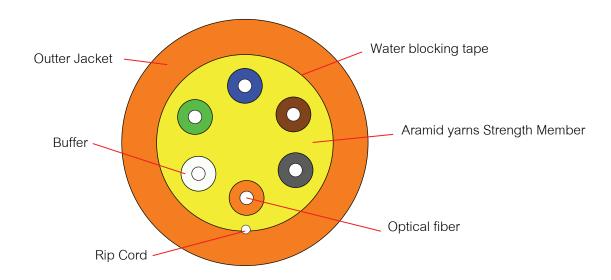
- Application support IEEEE802.3, ATM, FDDI, fiber channel, CATV, CCTV FTTX or other
- As building to building connecting cable
- As indoor soft cable along the wall, ceiling, between layers and in conduits
- As pigtails, movable connectors and patch cords for communication equipment

### **STANDARD**

- IEEE802.3 (LAN, Ethernet Fast Ethernet, Gigabit Ethernet and 10 Gigabit Ethernet) ATM, FDDI, FTTX, FiberChannel, CATV, Communication
- ANSI/TIA-568-C.3, ANSI/ICEA 596, ANSI/TIA/EIA-568-B.3 ISO/IEC 11801:2002
- Telcordia(Bellcore) GR-409-CORE
- ITU-T G.652D (Singlemode), ITU-T G.651 (Multimode), ITU-TG 657A2
- IEC 60332-1, IEC 60332-2& IEC 60332-3, IEC 60793/60794,EIA/TIA-455
- UL Listed E337497 RoHS Compliant 2002/95/EC



F-DX-XX





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## CONSTRUCTION

| Fiber type                   |              | Single -mode         |                   | Multi-mode      |                 |
|------------------------------|--------------|----------------------|-------------------|-----------------|-----------------|
|                              |              | 9/125 μm             | 62.5/125 µm (OM1) | 50/125 μm (OM2) | 50/125 μm (OM3) |
| Coating diameter (µm)        |              | 250                  |                   |                 |                 |
| Buffer diameter (µm)         |              | 900                  |                   |                 |                 |
| Fiber count                  |              | 6                    | 12                |                 |                 |
| Outer Diameter D*H (mm)      |              | 5.2±0.2              | 6.8±0.2           |                 |                 |
| Nominal weight (Kg/km)       |              | 23                   | 38                |                 |                 |
| Strength member              |              | Aramid yarn          |                   |                 |                 |
| Sheath                       | Material     | Polyvinyl chloride ( | (PVC)             |                 |                 |
|                              | Thickness    | 1.5±0.3mm            |                   |                 |                 |
| Cable diameter (mm)          |              | 4.8-6.8              |                   |                 |                 |
| Cable weight approx. (Kg/km) |              | 25-45                |                   |                 |                 |
| Min bending radius Static    | Installation | 20D                  |                   |                 |                 |
|                              | Operation    | 10D                  |                   |                 |                 |
| Max tensile load (N)         | Installation | 1800N                |                   |                 |                 |
|                              | Operation    | 600N                 |                   |                 |                 |
| Max crush resistance         |              | 1000                 |                   |                 |                 |
| Storage temperature          |              | -40°C - +75°C        |                   |                 |                 |
| Installing temperature       |              | -20°C - +70°C        |                   |                 |                 |

## OPTICAL FIBERCHARACTERISTICS

| Attenuation   | 850nm                 | ≤23 ≤25 ≤27     | [dB/km]  |
|---|-----------------------|-----------------|----------|
|   | 1300nm                | ≤0.55≤0.70≤0.80 | [dB/km]  |
| Overfilled modal bandwidth                                    | 850nm                 | ≥500≥400≥400    | [MHz-km] |
|   | 1300nm                | ≥1000≥800≥800   | [MHz-km] |
| Numerical aperture (NA)                                       |                       | 0.200 ±1.015    |          |
| Group index of refraction (typical)                           | 850nm                 | 1.482           |          |
| Backscatter characteristics                                   | 1300nm                |                 |          |
| Step (mean of bidirectional measurement)                      |                       | ≤0.10           | [dB]     |
| Irregularities over fiber length and point discontinuity      |                       | ≤0.10           | [dB]     |
| Different backscatter coefficient (bidirectional measurement) |                       | ≤0.08           | [dB/km]  |
| Core diameter   |                       | 50±2.5          | [µm]     |
| Cladding diameter   |                       | 12.50±1.0       | [µm]     |
| Cladding non-circularity                                      |                       | ≤1.0            | [%]      |
| Coating diameter  |                       | 242±7           | [µm]     |
| Coating/cladding concentricity error                          |                       | <b>≤</b> 12.0   | [µm]     |
| Coating non-circularity                                       |                       | <b>≤</b> 6.0    | [%]      |
| Core/cladding concentricity error                             |                       | <b>≤</b> 1.5    | [µm]     |
| Environmental characteristics                                 | 850nm, 1300nm         |                 |          |
| Temperature dependence, induced attenuation                   | -60 °C -+85°C         | ≤0.10           | [dB/km]  |
| Temperature-humidity cycling,induced attenuation              | -10°C -+85°C, 90% R.H | H≤0.20          | [dB/km]  |
| Damp heat dependence,induced attenuation                      | 85°C,85% R.H 30 days  | 3 ≤0.20         | [dB/km]  |
| Water soak dependence, induced attenuation                    | 20 °C,30 days         | ≤0.20           | [dB/km]  |

| Proof test   | offline                  | ≤9.0      | [N]   |
|--|--------------------------|-----------|-------|
|  |                          | ≥1.0      | [%]   |
|  |                          | ≥100      | [KPS] |
| Bending dependence   | 850nm,1300nm             |           |       |
| Induce attenuation   | 100 turns, 75mm diameter | ≤0.50     | [dB]  |
| Coating strip force  | Typical average force    | 1.7       | [N]   |
|  | Peak force               | ≥1.3 ≤8.9 | [N]   |
| Dynamic stress corrosion susceptibility parameter (nd,Typical) | ≥27                      |           |       |

### PACKING AND DRUM

The cable is rounded on a non-returnable wooden drum. Both ends of cable are securely fastened to drum and sealed with a shrinkable cap to prevent ingress of moisture. The following information shall be marked on the outer sheath of the cable at an interval of about 1 meter.

- Cable type and number of optical fiber
- Manufacturer name
- Month and Year of Manufacture
- Cable length

The sequential number of the cable length shall be marked on the outer sheath of the cable at an interval of 1meter ± 1%

## ORDER INFOMATION

| PRODUCT                              | PART NUMBER |
|--------------------------------------|-------------|
| Distribution Cable 6 Core, 50/125MM  | F-D5-06     |
| Distribution Cable 12 Core, 50/125MM | F-D5-12     |
| Distribution Cable 6 Core, SM        | F-D9-06     |
| Distribution Cable 12Core, SM        | F-D9-12     |