

TMS / ITS - Approved Products List

Fiber Optic Cables

Fiber Optic Cable shall comply with USDA RUS Bulletin 1753F-601a (Minimum Specification Fiber Optic Cables); ANSI/ICEA S-87-640 and the following requirements:

- A. Designed for outdoor and direct buried applications.
- B. Cable jacket has markings on one-meter (three-foot) intervals showing the manufacturer, fiber count, MN/DOT part number, mode, and length in meters.
- C. Outside diameter of < 23 mm (0.906 inch).
- D. Outer jacket is made of a Medium Density Polyethylene, with a minimum nominal thickness of 1.3 mm, and is applied over corrugated steel tape armor.
- E. Inner Jacket is made of Medium Density Polyethylene, with a minimum nominal thickness of 0.50 mm (0.02 inch), and is applied directly over tensile strength members and water blocking material.
- F. Ripcords placed under the armor and the inner jacket.
- G. Buffer Tubes are gel filled and have an outside diameter ranging from 1.9 mm (.075 inch) to 3.0 mm (0.118 inch). The tubes contain 6 or 12 fibers for counts of 12 or less; and 12 fibers for counts greater than 12. Dielectric central strength member.
- H. Single Mode fiber shall meet the attributes of ITU-T G.652.D Table 2 and ITU-T G.657.A1 for low bend loss.
- I. Multimode Fiber
 1. Comply with the latest issue of EIA/TIA-492AAAA
 2. Diameter of the core shall be $62.5 \mu\text{m} \pm 3 \mu\text{m}$.
 3. Numerical aperture shall be 0.275 ± 0.015 . Diameter of the cladding shall be $125 \mu\text{m} \pm 2 \mu\text{m}$.
 4. The bandwidth of the cable shall be greater than or equal to 200 MHz/km at 850 nm and 500 MHz/km at 1300 nm.
 5. Maximum attenuation shall be 3.5 dB/km at 850 nm; 1.0 dB/km 1300 nm.
 6. Factory fusion splices shall not be allowed.