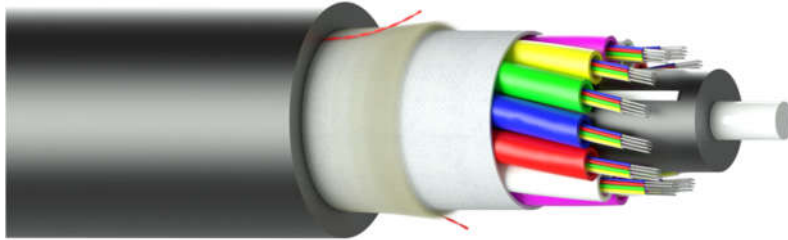


ADSS 144/M12 G.652D SJ HDPE 2.7kN D14



*indicative purpose drawings

TELECOM CABLES
ADSS

APPLICATION & STANDARDS

~ Designed for outdoor aerial installation on poles. It can also be used in ducts where there is no need of rodent protection;

~ IEC 60794-4-20 - Aerial optical cables along electrical power lines - Family specification for ADSS (all dielectric self-supported) optical cables;

~ EN 60794-1 - Optical fibre cables. Generic specification. Basic optical cable test procedures;

~ ITU-T G.652 - Characteristics of a single-mode optical fibre and cable;

CONSTRUCTION

~ **Central FRP** rod, PE coated;

~ **PBT loose tubes** containing fibers, filled with a suitable water tightness compound;

~ **Water swellable yarns**;

~ **Water blocking tape**;

~ **Aramid yarns** as peripheral strength member;

~ **Ripcords**;

~ **Outer Jacket** (Black PE, UV resistant);

Stranding: Loose tubes SZ stranded around central strength member;

GENERAL DESCRIPTION

All Dielectric Self-Supporting Fiber Optic Cables are designed for aerial installation. It does not need support or messenger wire for installation which makes it a cost-effective and simple way of setting up fiber optic networks.

The aramid yarns helps the cable to have good tensile performance and temperature performance under extreme weathers.

This cable contains fibers made of high pure silica and germanium doped silica.

CONSTRUCTION & MAIN FEATURES

| CHARACTERISTIC | SPECIFIED VALUE |
|---|--|
| G.652D - OPTICAL FIBER PERFORMANCE | |
| Attenuation Coefficient: at 1310 nm Max : at 1550 nm Max : | ≤ 0.36 dB/km ≤ 0.23 dB/km |
| Chromatic Dispersion: between 1285 - 1330 nm: at 1550nm | ≤ 3.5 ps/nm·km ≤ 18 ps/nm·km |
| Chromatic dispersion coefficient | $\lambda_{\text{omin}}:1300$ nm $\lambda_{\text{oMax}}:1324$ nm |
| Point Discontinuity: at 1310&1550 nm | ≤ 0.1 dB |
| Polarization Mode Dispersion (PMD Individual) Polarization Mode Dispersion (Link Design) | ≤ 0.2 ps/√km ≤ 0.08 ps / √km. |
| Cable Cut off Wavelength (λ_{cc}) | ≤ 1260 nm |
| Mode Field Diameter : at 1310 nm at 1550 nm | 9.2 ± 0.4 μm 10.4 ± 0.5 μm |
| Cladding Diameter | 125 ± 1.0 μm |
| Cladding Non-Circularity | $\leq 0.7\%$ |
| Core / Cladding Concentricity error | ≤ 0.5 μm |
| Coating Diameter | 250 ± 7 μm |
| FIBER OPTIC CABLE PARAMETERS | |
| Core Type | G.652D |
| Fiber Count | 144 |
| Tube Count | 12 |
| Filler Count | 0 |
| Cable Diameter | 14.0 ± 0.5 mm |
| Cable Weight | 150 ± 15 kg/km |
| Max. Installation Tensile Strength (IEC-60794-1-21-E1) | 4000 N, 10min., fibre strain $\leq 0.33\%$ |
| Max. Operation Tensile Strength (IEC-60794-1-21-E1) | 2700 N, no fibre strain |
| Crush (IEC-60794-1-21-E3) | 2000 N/10cm |
| Water Penetration (IEC-60794-1-22-F5) | 1 m water head, 3 m sample, 24 hours |
| Minimum Bending Radius | 20 x D |
| Temperature (Installation) | $-10^{\circ}\text{C} \div +50^{\circ}\text{C}$ |
| Temperature (Operation) | $-40^{\circ}\text{C} \div +70^{\circ}\text{C}$ |
| Temperature (Storage) | $-20^{\circ}\text{C} \div +70^{\circ}\text{C}$ |
| Packing | Wooden drum with protection |

The above design is only a sample of the options available. Contact our sales team for other specifications. Our policy of continuous improvement may result in a change of specifications without notice.

| CHARACTERISTIC | SPECIFIED VALUE |
|------------------|---|
| Delivery Lengths | To be confirmed, $\pm 5\%$ tolerance |
| Marking | <OPTIVINE> + <ADSS 144/M12 G.652D SJ HDPE 2.7kN D14>+ <manufacturing date> + <length marking> |

| Fiber&Tube Color Identification* | | | | | | | | | | | | |
|----------------------------------|-----|-------|--------|------|--------|-------|-------|--------|------|------|------|-------|
| No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Color | Red | Green | Yellow | Blue | Orange | Brown | White | Violet | Pink | Aqua | Grey | Black |

* Fibers from 13 to 24 will be marked with one black ring at every 50mm. Fibers from 25 to 36 will be marked with two black rings at every 50mm.