

LP-OC10121444ZC600 All dielectric self-supporting Optical Cable for 600m span with 144 Singlemode ITU-T G.652.D fibers in Gel filled Loose Tubes, protected with Double Jacket PE, Peripheral Aramid® Yarns, FRP Central Strength member and Ripcord

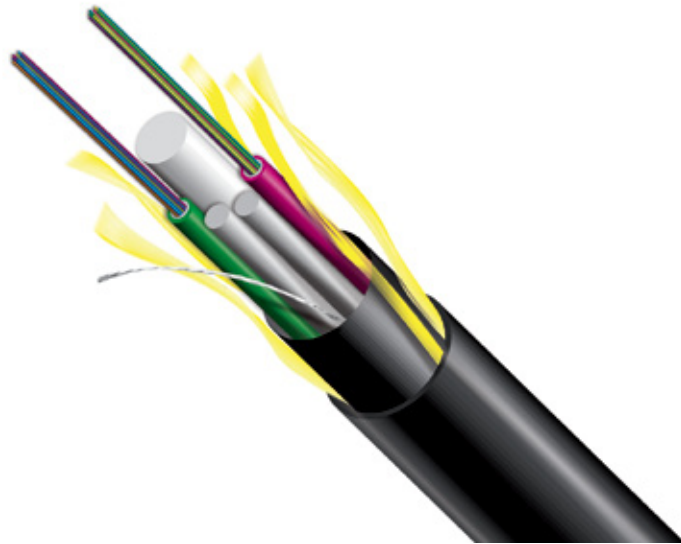
LPOC10121444ZC600_SS_ENB01W

Features:

- Two Jacket and stranded loose tube design. Stable performance and compability with all common fiber types.
- There is no support or messenger wire required. Aramid yarn is used as the strength member to assure the tensile and strain Performance.
- Mainly installed at existing 220KV or lower voltage power lines.

Applications:

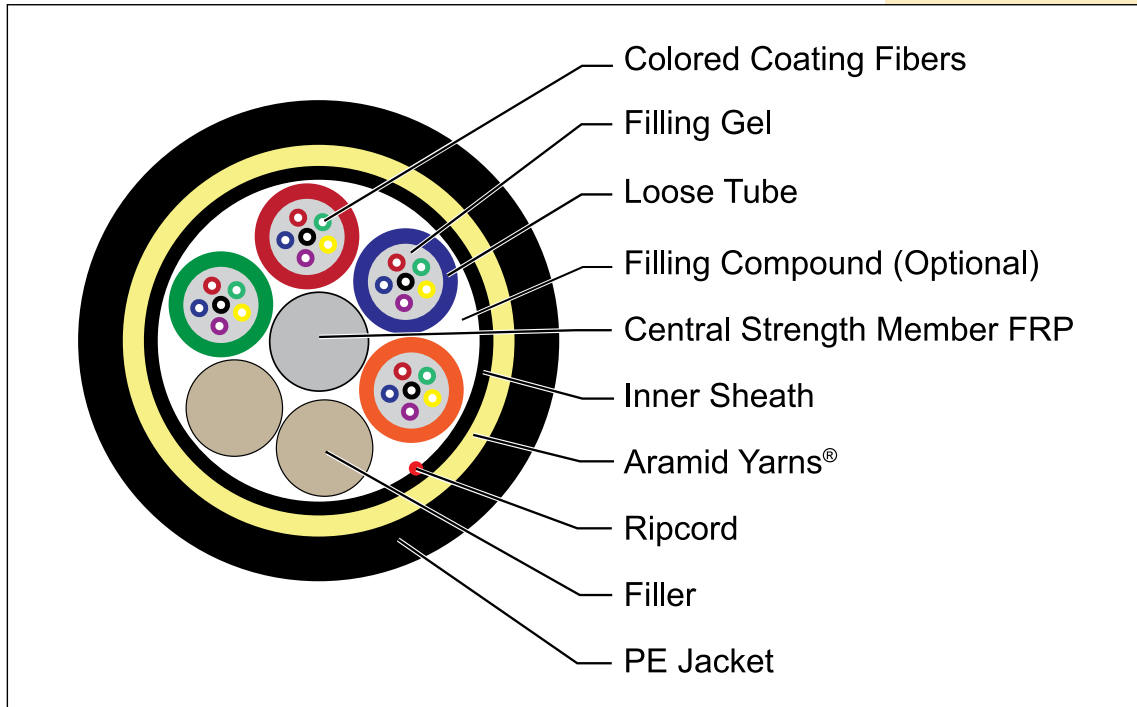
- All dielectric self-supporting Optical Cable for 600m Span.
- Subscriber Network Systems.
- Local Area network Systems.

**LP-OC10121444ZC600**

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The **LP-OC10121444ZC600** is what the industry calls, all dielectric self-supporting Optical Cable for 600m span with 144 Singlemode ITU-T G.652.D fibers in Gel filled Loose Tubes, protected with Double Jacket PE, Peripheral Aramid® Yarns, FRP Central Strength member and Ripcord.

A Cable Section



B Technical Specification

Fiber count	144
Max. No of loose tube / filler No.	12/0
Number of fibers per tube	12
Central strength member	FRP
Outer sheath thickness	2.0±0.2mm
Outer sheath material	HDPE
Inner sheath material	MDPE
Inner sheath thickness	0.8mm
Cable OD (mm)	16.9
Cable weight (kg/km)	189
Operation temperature range	-40°C a + 70 °C
Installation temperature range	-40°C a + 70°C
Transport and storage temperature range	-40°C a + 70°C
Span	600m
Rated tensile strength (KN)	28.1
Maximum allowable tensile (KN)	12.6
Crush resistance	Installation :2200 (N/100mm) Operating: 1100N/100mm
Minimal installation bending radius	20 x OD
Minimal operation bending radius	10 x OD

C Color identification of fiber and loose tube

The fibers shall be marked by a colored coating with 12 different colors according to EIA/TIA 598:

1	2	3	4	5	6
7	8	9	10	11	12

D Test requirements

The cable is in accordance with applicable standard of cable and requirement of customer. The following test items are carried out according to corresponding reference. Routine tests of optical fiber.

Mode field diameter	IEC 60793-1-45
Mode field Core/clad concentricity	IEC 60793-1-20
Cladding diameter	IEC 60793-1-20
Cladding non-circularity	IEC 60793-1-20
Attenuation coefficient	IEC 60793-1-40
Chromatic dispersion	IEC 60793-1-42
Cable cut-off wavelength	IEC 60793-1-44

TEST FOR OUTDOOR CABLE:

1.1 Tension Loading Test

Test Standard	IEC 60794-1-2 E1
Sample length	No less than 50 meters
Load	Max. installation load
Duration time	1 hour
Test results	Additional attenuation: ≤0.05dB No damage to outer jacket and inner elements

1.2 Crush/Compression Test

Test Standard	IEC 60794-1-2 E3
Load	Crush load
Plate size	100 mm length
Duration time	1 minute
Test number	1
Test results	Additional attenuation: ≤0.05dB No damage to outer jacket and inner elements

1.3 Impact Resistance Test

Test Standard	IEC 60794-1-2 E4
Impact energy	6.5J
Radius	13.6mm
Impact points	3
Impact number	2
Test result	Additional attenuation: $\leq 0.05\text{dB}$

1.4 Repeated Bending Test

Test Standard	IEC 60794-1-2 E6
Bending radius	20 X diameter of cable
Cycles	25 cycles
Test result	Additional attenuation: $\leq 0.05\text{dB}$ No damage to outer jacket and inner elements

1.5 Torsion/Twist Test

Test Standard	IEC 60794-1-2 E7
Sample length	2m
Angles	± 180 degree
cycles	10
Test result	Additional attenuation: $\leq 0.05\text{dB}$ No damage to outer jacket and inner elements

1.6 Bend Test

Test Standard	IEC 60794-1-2 E11B
Mandrel diameter	20 X diameter of cable
Turn number	4
Number of cycles	3
Temperature	20°C
Test result	No damage to outer jacket and inner elements

1.7 Temperature cycling Test

Test Standard	IEC 60794-1-2 F1
Temperature step	+20°C → -40°C → +85°C → +20°C
Time per each step	Transition from 0°C to -40°C: 2hours; duration at -40°C: 8 hours; Transition from -40°C to +85°C: 4hours; duration at +85°C: 8 hours; Transition from +85°C to 0°C: 2hours
Cycles	5
Test result	Attenuation variation for reference value (the attenuation to be measured before test at +20±3°C) ≤ 0.05 dB/km

1.8 Water penetration Test

Test Standard	IEC 60794-1-2 F5
Height of water column	1m
Sample length	1m
Test time	1 hour
Test result	No water leakage from the opposite of the sample

1.9 Drip Test

Test Standard	IEC 60794-1-2 E14
Sample length	0.3m
Temperature	70 °C
Duration	24 hrs.
Test result	No filling compound shall drip from tubes

E How to Order

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