

**LP-OC10120244ZC600 All dielectric self-supporting Optical Cable for 600m span with 24 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**

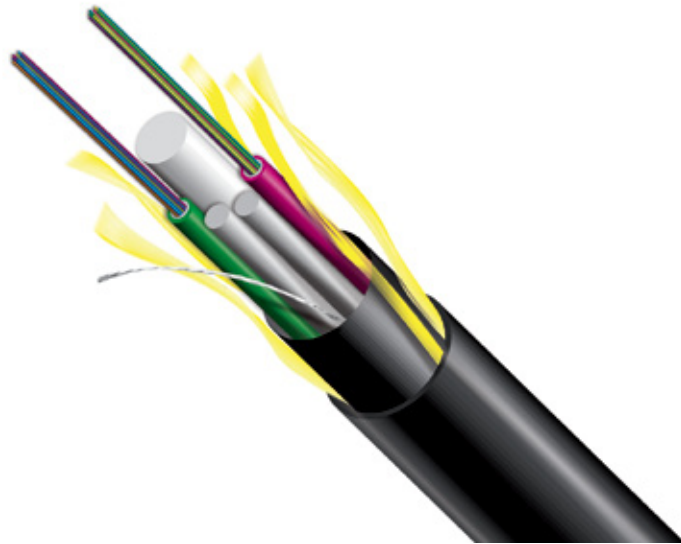
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**Features:**

- 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:**

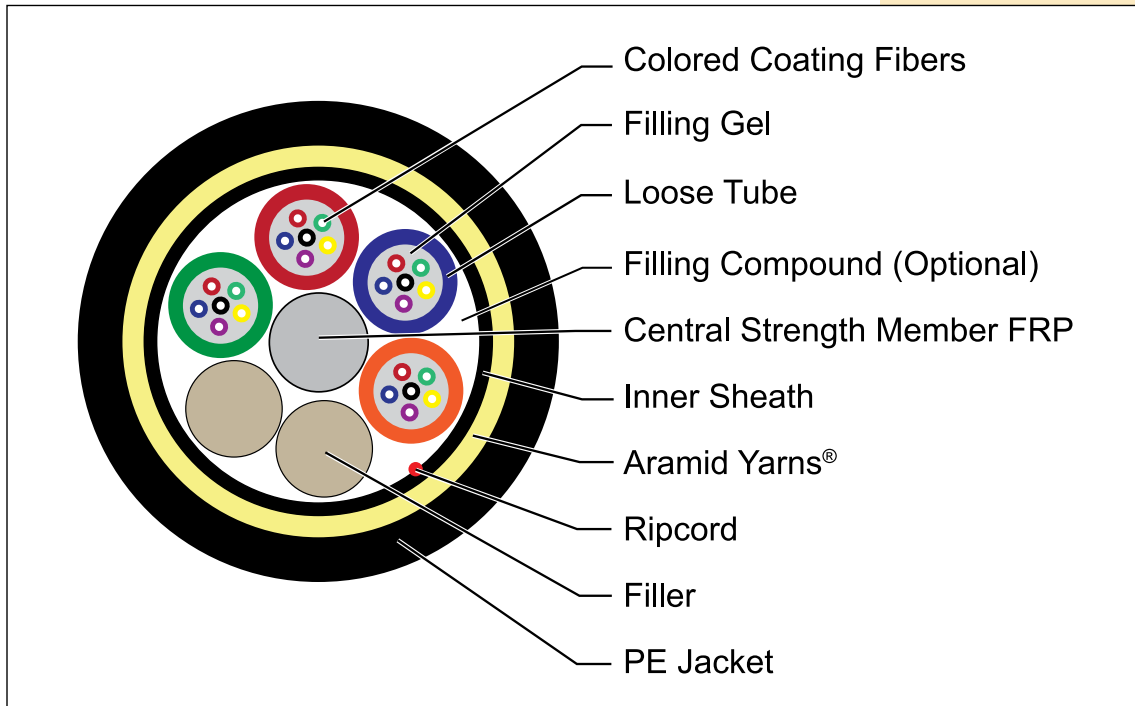
- All dielectric self-supporting Optical Cable for 600m Span.
- Subscriber Network Systems.
- Local Area network Systems.

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The **LP-OC10120244ZC600** is what the industry calls, all dielectric self-supporting Optical Cable for 600m span with 24 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**

<b>Fiber count</b>	24
<b>Max. No of loose tube / filler No.</b>	4/2
<b>Number of fibers per tube</b>	6
<b>Central strength member</b>	FRP
<b>Outer sheath thickness</b>	2.0±0.2mm
<b>Outer sheath material</b>	HDPE
<b>Inner sheath material</b>	MDPE
<b>Inner sheath thickness</b>	0.8mm
<b>Cable OD (mm)</b>	13.6
<b>Cable weight (kg/km)</b>	156
<b>Operation temperature range</b>	-40°C a + 70 °C
<b>Installation temperature range</b>	-40°C a + 70°C
<b>Transport and storage temperature range</b>	-40°C a + 70°C
<b>Span</b>	600m
<b>Rated tensile strength (KN)</b>	28.1
<b>Maximum allowable tensile (KN)</b>	12.6
<b>Crush resistance</b>	Installation :2200 (N/100mm) Operating: 1100N/100mm
<b>Minimal installation bending radius</b>	20 x OD
<b>Minimal operation bending radius</b>	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:

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>

**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.

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

**TEST FOR OUTDOOR CABLE:**

**1.1 Tension Loading Test**

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

**1.2 Crush/Compression Test**

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

### 1.3 Impact Resistance Test

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

### 1.4 Repeated Bending Test

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

### 1.5 Torsion/Twist Test

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

### 1.6 Bend Test

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

### 1.7 Temperature cycling Test

<b>Test Standard</b>	IEC 60794-1-2 F1
<b>Temperature step</b>	+20°C → -40°C → +85°C → +20°C
<b>Time per each step</b>	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
<b>Cycles</b>	5
<b>Test result</b>	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

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

### 1.9 Drip Test

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

## E How to Order

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