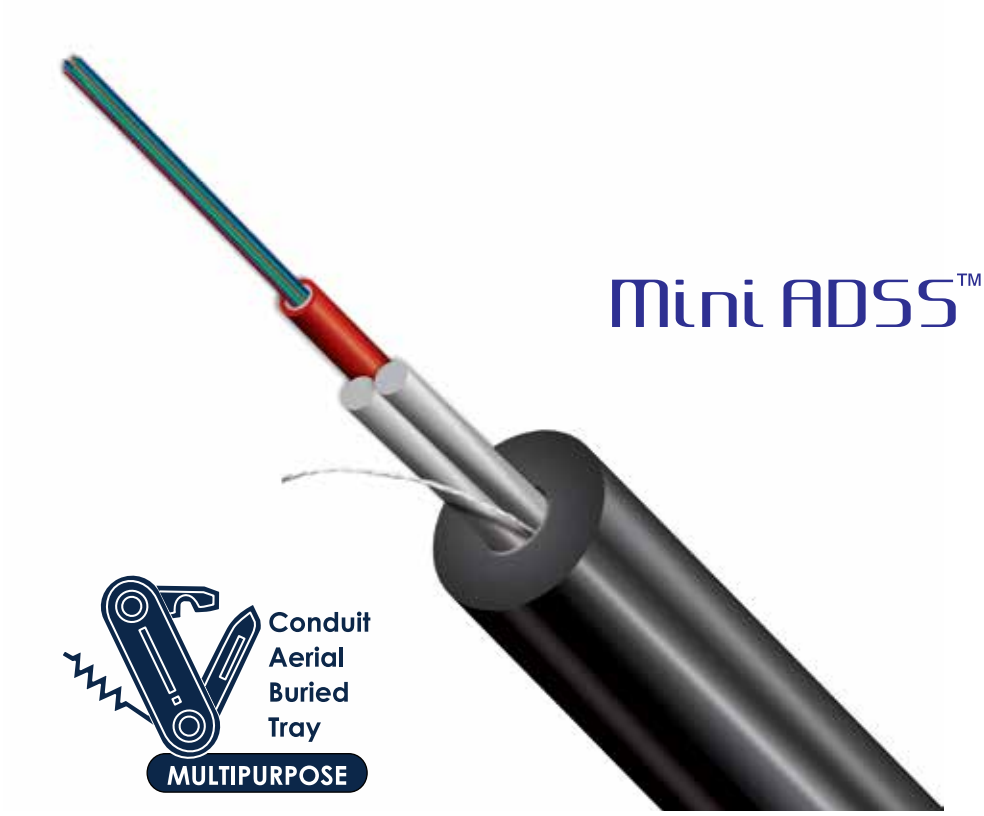
LP-OC49120124ZC100 Mini ADSS, All dielectric self supporting Fiber Optical Cable for up to 100m span with 12 fibers Singlemode G652D, Loose Tubes, single PE Jacket, with two (2) Strength Member FRP, central Water Blocking yarns and Ripcord

LPOC49120124ZC100_SS_ENB01W

Applications:

- All Dielectric self supporting Optical Cable for 100m.
- Subscriber Network Systems.
- Local Area network Systems.

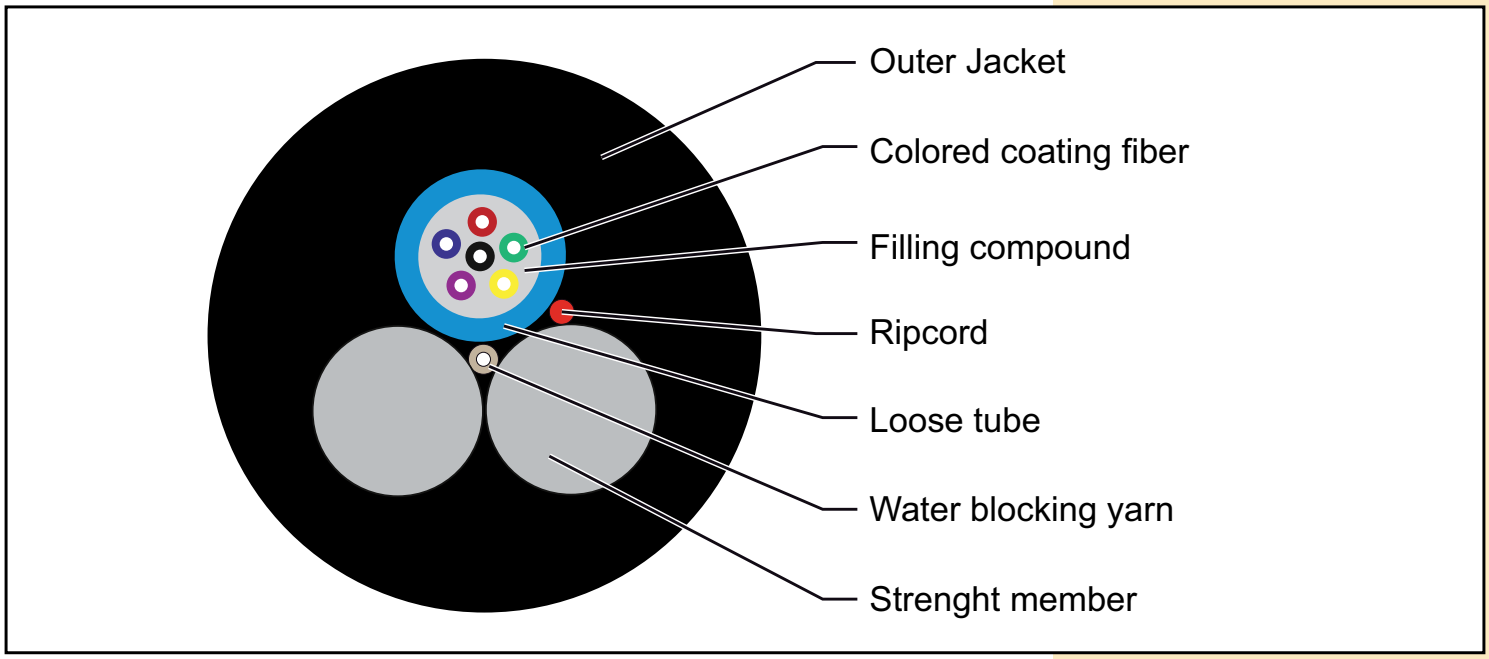


LP-OC49120124ZC100

Mini ADSS, All dielectric self supporting Fiber Optical Cable for up to 100m span with 12 fibers Singlemode G652D, Loose Tubes, single PE Jacket, with two (2) Strength Member FRP, central Water Blocking yarns and Ripcord

The LP-OC49120124ZC100 series is what the industry calls an All-Dielectric self supporting Optical Cable with several Span lengths for 100m. With Color Coded Singlemode fibers in Gel filled Loose Tubes protected with Single PE Jacket, with two (2) Strength Member FRP, central Water Blocking yarns and Ripcord.

A Cable Section



B Fiber Construction

- **Number of fibers:** 12 fibers

- **Strength member:** Two Glass fiber reinforced plastic material (FRP).

- **Tube:** Thermoplastic material, containing up to 12 optical fibers filled with a low viscosity, thixotropic, non-melting gel fully compatible with fiber coating and tube material.

- **Sheath:** UV stabilized polyethylene.

- **Ripcord:** 1 strong ripcord under sheath easy strip cable.

- **Compliance:**

ITU-T G.652 "Standard for non-dispersion shifted single-mode fiber";
ITU-T G.655 "Standard for non-zero dispersion-shifted single-mode optical fiber";
ITU-T G.657 "Standard for bending-loss insensitive single-mode optical fiber and cable for the access network";
ANSI/ICEA S-87-640 "Standard for Optical Fiber Outside Plant Communications Cable";
Telcordia GR-20 CORE Issue 2 "Generic Requirements for Optical Fiber and Optical Fiber Cable";
ANSI/TIA/EIA 598-D "Optical Fiber Cable Color Coding";
IEC-60794-1 "Standard | fibre optics | Optical fibre cables".

Technical Specifications

Parameter	100 span
Number of fibers	12
Number of fibers per tube	12
Number of loose tube	1
Strength Member	
Number of Strength member	2
Material	FRP
Size	2x2.2mm
Loose tube	
Material	PBT
Size	2.3mm±0.1
Outer Jacket	
Material	MDPE
Cable nominal Diameter	
mm ±0.3	7.0
Cable nominal weight	
kg/km±5	45
Max. working tension	
N	1000
Max. crush resistance	
N	1000 (Short term) / 600 (Long term)
Min. bending radius	
At full load 20 x Cable OD (including poles) At no load 15 x Cable OD	
Temperature range	
Installation 0°C -> +50°C	
Operation -10°C -> +70°C	

D Optical Characteristics SM G652D

Mode Field Diameter @ 1310 nm	8.7-9.5 um	
Mode Field Diameter @ 1550 nm	9.8-10.8um	
Cladding diameter	125.0 ± 0.7 mm	
Core/cladding concentricity error	0.6 um	
Cladding non-circularity	1.0 %	
Refractive index profile	Step	
Design	Matched cladding	
Primary coating material	UV curable acrylate	
Optical Characteristics		
Attenuation	@ 1310nm	0.4 dB/km
	@ 1383 3nm	0.36 dB/km
	@ 1550nm	0.3 dB/km
Dispersion	@ 1288 ~ 1339nm	3.5 ps/nm
	@ 1550nm	18 ps/nm
Zero dispersion wavelength	1300 – 1324 nm	
Dispersion slope at zero dispersion wavelength	0.092 ps/nm2	
Cabled cut-off wavelength (cc)	1260 nm	
Polarization mode dispersion link value	0.2 ps/√km	
Mechanical Characteristics		
Proof stress level	≥0.69 GPa	
The loss increases of 100 turns of fiber loosely wound with Bending radius	0.05dB (at 1550nm)	
Effective group index of refraction Neff	25mm radio	
Effective group index of refraction Neff	25mm radius	

E Identification

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

Fiber #1: Blue
Fiber #2: Orange
Fiber #3: Green
Fiber #4: Brown
Fiber #5: Grey
Fiber #6: White
Fiber #7: Red
Fiber #8: Black (natural with being marked)
Fiber #9: Yellow
Fiber #10: Violet
Fiber #11: Pink
Fiber #12: Aqua (Light Blue)

No	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Gray	White	Red	Black	Yellow	Violet	Pink	Aqua

F Main mechanical Factory Routine Test

Parameter	Test method	Test conditions	Acceptance criteria*
Tensile strength	IEC 60794-1-21-E1	As per cable maximum tensile strength (max. Working tension) in table above	After 30 minutes the maximum strain on the fiber should not exceed 0.33% and no attenuation change Throughout test
Crush	IEC 60794-1-21-E3	**Short time:** 10 min **Long time:** 120 min **Load:** As per maximum crush resistance in table above **Number of positions:** 3 adjacent sections (ensuring one over tube and one over lay reversal)	No damage to the sheath or to the core structure and no attenuation change throughout test
Impact	IEC 60794-1-21-E4	**Weight:** 1.5 kg **Height:** 1.0 m **Radius:** 12.5 mm **Impacts:** 1	After 5 minutes no fiber breaks, no damage to the sheath or to the core structure and no attenuation change throughout test
Torsion	IEC 60794-1-21-E7	**Sample length:** 1 m **Rotation:** a) 180º clockwise, b) return to starting position, c) 180º anticlockwise, d) return to starting position. Four movements constitute one cycle). Complete 10 cycles (a to d) in one minute maximum	During the final tenth cycle at a), c) and after completion (no rotation) check transmitting fibers. No fiber breaks, no damage to the sheath or to the core structure and no attenuation change throughout test
Bend	IEC 60794-1-21-E11	**Mandrel diameter:** 30 x Cable OD **Curvatura:** 360º (1turno) **Bend:** 360º (1turn)	No attenuation changes throughout test
Bend under tension	IEC 60794-1-21-E18A	**Mandrel diameter:** 40 x Cable OD **Bend:** 360º (1turn)	After 1 minute no fiber breaks, no damage to the heath or to the core structure and no attenuation changes throughout test
Temperature cycling	IEC 60794-1-22-F1	**Sample length:** 1000 m (minimum)	Temperature range: – 10 °C to +70 °C

Note: All optical measurements for singlemode fibers performed at 1550nm

G How to order

LP-OC49120124ZC100	**Mini ADSS, All dielectric self supporting Fiber Optical Cable for up to 100m span, with 12 singlemode ITU-T G.652.D Loose Tubes fibers, Single PE Jacket, two (2) Strength members FRP, central water blocking yarns, Water Blocking Yarns and Ripcord.**

Lanpro is continuously improving its products and reserves the right to change specifications and availability without prior notice.