

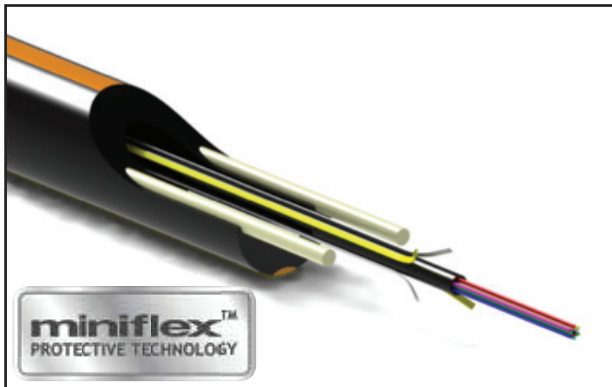
# Miniflex<sup>®</sup>

## 1-24 Fiber ADSS Cable



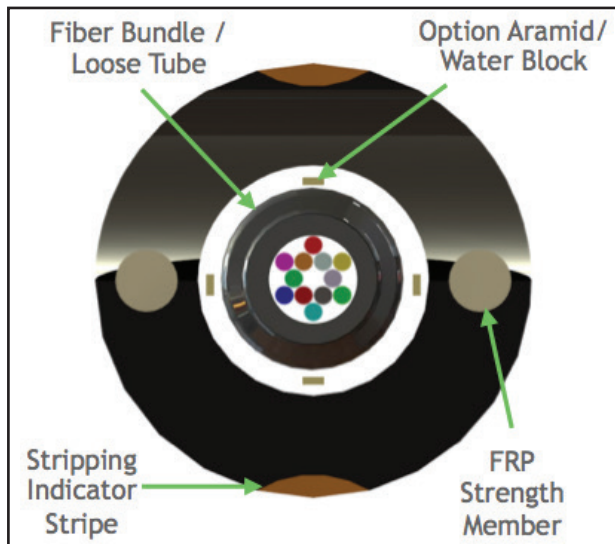
PPC's ultra-light weight ADSS cable has an all dielectric construction that is substantially lighter than traditional aerial fiber cables. The cable's light weight allows existing poles to be used without the need for surveys, planning and remedial civil works, thereby facilitating rapid and cost effective aerial fiber optic network deployment.

**Due to the all dielectric construction, the cable can be safely located near high voltage overhead power lines.**



### Advantages

- Small Diameter- Up to 24 fibers in just 7mm O.D.
- Light weight: from 75 lbs (34 kg) per km
- Easy to Handle - round concentric design
- Supported by existing poles and hardware
- All Dielectric Self Supporting construction
- Easy to Strip – optimize for mid-span access
- Self Supporting Spans up to 360 feet (110 metres)



The ADSS cable from PPC is smaller than competing self-support aerial cables; in-part because the strength members are embedded within the round cable jacket design. As well as being more aesthetically pleasing this reduces the loading effect of wind and ice when compared to other cable designs.

PPC's ADSS cable utilizes a single loose tube, with 1 to 12 fibers (6mm Jacket) or up to 24 fiber (7mm Jacket). Utilizing a separate loose tube reduces the risk of fiber strain and offers better protection from abrasion, impacts and crushing forces, whilst simplifying fiber management and cable stripping.

### Applications

- FTTx Backbone Aerial Fiber
- Metropolitan Subscriber Networks
- Rural Broadband and SDU Deployments
- Direct Bury and Sub-Duct Routing

### Reel Information



Reel Ø Dia.	Reel Width	Total Weight
Inch (mm)	Inch (mm)	Lbs (kg)
30 (750)	16 (400)	<155 (<70)

### Compatibility & Specification

- ITU-T G.657A1 single-mode & G.651 OM3 multimode
- Fusion and Mechanical Splice Practises
- Spiral (formed wire) and Wedge type clamps and dead-ends



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### Transmission Performance Specification

Item	Single-mode	Multi-mode
<b>Specification</b>	G657 A1	G.651 OM3
<b>Attenuation (850 / 1300 nm)</b>	n/a	≤ 2.3/1.5 dB/km
<b>Attenuation (1310 / 1550 nm)</b>	≤ 0.4/0.4 dB/km	n/a
<b>Refractive Index at 1310nm, 1550nm</b>	1.467, 1.468	n/a
<b>Refractive Index at 850nm, 1300nm</b>	n/a	1.482, 1.477
<b>Proof test</b>	0.69 GPa (100 kpsi), 1% min.	0.69 GPa (100 kpsi), 1% min.
<b>Cladding diameter</b>	125 ± 0.7µm	125 ± 1.0µm
<b>Coated diameter</b>	235µm to 245µm	237µm to 247µm
<b>Core/Cladding concentricity error</b>	≤ 0.5µm	≤ 1.0µm
<b>Coating concentricity error</b>	≤ 12µm	≤ 6µm
<b>Macro bend loss</b>	(1550 nm)	(850 and 1300 nm)
<b>10 turns at 50mm diameter</b>	≤ 0.01 dB	≤ 0.2 dB
<b>10 turns at 30mm diameter</b>	≤ 0.2 dB	n/a
<b>1 turn at 20mm diameter</b>	≤ 0.2 dB	n/a
<b>Temp. range (operation) -30°C to +70°C</b>	max attenuation change ≤ 0.1 dB/km	max attenuation change ≤ 0.1 dB/km
<b>Coating Strip Force</b>	1.3 to 8.9 N	1.3 to 8.9 N

### Cable Performance

The excellent mechanical performance of PPC ADSS cable comes from the combination of composite materials used in its construction. A weatherproof and UV stable black polyethylene jacket is extruded over twin fiberglass reinforced plastic strength elements. Within the round concentric bore is a single loose tube made from a tough and flame retardant PBT polymer. For 24 fiber ADSS the 2ndxfiber set is hash marked for easy identification.

Fiber Count	Weight	OD	Minimum Bend Radius	Crush Resistance
250µm	lbs/km (kg)	(mm)	(mm)	(N)
1-12	53 (24)	6.0	60	2,000
24	75 (34)	7.0	70	2,000

Jacket	Loose Tube	Operating Temp	Installation Temp	Storage Temp
PE	PBT	--22°F to 158°F (-30°C to +70°C)	--4°F to 122°F (-20°C to +50°C)	--22°F to 158°F (-30°C to +70°C)

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Max Stringing Tension	250 N (55 lbs.)
Max Installation Tension	445 N (100 lbs)
Max Loaded Tension/MRCL	1000 N (225 lbs.)
Rated Breaking Strain	3000 N (674 lbs)

### Installation Performance

Installation Sag	LIGHT [no ice, <90mph wind]		MEDIUM [¼ inch ice, <40mph wind]		HEAVY [½ inch ice, <40mph wind]	
	Max Span (meters)	Max Span (feet)	Max Span (meters)	Max Span (feet)	Max Span (meters)	Max Span 9feet)
0.5	80	262	55	180	30	98
1.0	105	344	70	229	35	114